

**EFFECTIVENESS OF COMPUTER ASSISTED INSTRUCTION
REGARDING BREAST SELF EXAMINATION ON
KNOWLEDGE AND ATTITUDE AMONG
UNDER GRADUATE STUDENTS
AT KANYAKUMARI**

By

Ms. JASMINE VICTORIA. N

Reg. No. 30106224

**A DESSERTATION SUBMITTED TO THE TAMILNADU DR.M.G.R
MEDICAL UNIVERSITY, CHENNAI IN PARTIAL FULFILLMENT OF
THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN
NURSING (OBSTETRICAL AND GYNECOLOGICAL NURSING)**

APRIL-2012

**EFFECTIVENESS OF COMPUTER ASSISTED INSTRUCTION
REGARDING BREAST SELF EXAMINATION ON
KNOWLEDGE AND ATTITUDE AMONG
UNDER GRADUATE STUDENTS
AT KANYAKUMARI**

By

Ms. JASMINE VICTORIA.N

Reg. No. 30106224

**A DESSERTATION SUBMITTED TO THE TAMILNADU DR.M.G.R
MEDICAL UNIVERSITY, CHENNAI IN PARTIAL FULFILLMENT OF
THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE
IN NURSING (OBSTETRICAL AND GYNECOLOGICAL NURSING)**

APRIL-2012

CERTIFICATE

Certified that this is the bonafied work of **Ms.Jasmine Victoria.N**, Final Year M.Sc (Nursing) student of Sara Nursing College, Dharapuram, Submitted in Partial Fulfillment of the requirement for the degree of Master of Science in Nursing to The Tamil Nadu Dr. M.G.R Medical University, Chennai, under the Registration No.**30106224**

College seal:

Signature:

PROF.M.KANADASAMY, M.Sc(N), (Ph.D.),
PRINCIPAL.,
SARA NURSING COLLEGE,
PALANI MAIN ROAD, MANAKADAVU,
DHARAPURAM – 638 673, TIRUPUR DISTRICT.

**EFFECTIVENESS OF COMPUTER ASSISTED INSTRUCTION
REGARDING BREAST SELF EXAMINATION ON KNOWLEDGE
AND ATTITUDE AMONG UNDER GRADUATE STUDENTS AT
KANYAKUMARI**

Approved by the Dissertation Committee on: 03.02.2012

Signature of the Research Guide

:.....

**Prof. M.KANADASAMY,
M.Sc (N), (Ph.D)**

Principal,

Sara Nursing College,

Dharapuram - 638673

Signature of the Clinical Speciality Guide :

Mrs. R.Mary Sumathi, M.Sc (N).,

Reader,

HOD of Obstetrical and
gynecological Nursing,

Sara Nursing College,

Dharapuram-638673.

Signature of the Medical Expert

.....

**Dr. R.Kousalya Devi,B.A,
M.B.B.S, DGO.,**

Adviser, Kasturba hospital,
Gandhigram, Dindugul.

Signature of the internal Examiner

with Date

Signature of the External Examiner

with Date.

ACKNOWLEDGEMENT

“Apart from God every activity is merely a passing whiff of insignificance”

With immense joy and gratitude I raise my heart in praise and sincere gratitude to **“God Almighty”** for his manifold graces and blessings showered on me all throughout this study.

It is my privilege to be a part of this institution and to thank **Mrs. Mariyam UL Asia**, Chairman, Sara Nursing College, Manakkadavu, Dharapuram, for allowing me to undertake the study and avail the facilities in this institution.

It is a moment of great pleasure to place on record my deep sense of gratitude and indebtedness to **Mrs. Benazir MBA.**, Vice-Chairman, Sara Nursing College, Dharapuram for providing necessary facilities to conduct this study.

I am very much thankful and grateful to my research guide **Prof. M. Kandasamy, M.Sc (N)., (Ph.D).**, Principal, Sara Nursing College, Dharapuram for his periodic assessment of my work, valuable suggestion and exemplary guidance throughout this dissertation.

I am indeed with great pleasure and privilege to work and to take up this dissertation under the scholarly guidance of my Clinical Specialty Guide **Mrs. R. Mary Sumathi M.Sc(N).**, HOD of Obstetrical and Gynecological Nursing, Sara Nursing College, Dharapuram who has been a constant source of inspiration and encouragement in completing this dissertation.

I am immensely thankful to my medical guide **Dr. R. Kousalya Devi, B.A., M.B.B.S., D.G.O.**, Adviser for Kasturba Hosbital, Gandhigram who gave suggestion for my study.

No research project is complete without statistics. Hence my deep thanks to **Mr. S. Senthil Kumar**, Lecturer in Statistics, G. V. N. Hospital, Trichy District, for his constructive suggestions regarding statistical analysis.

My sincere thanks to **Mrs. Jasmin Guilda Star M.sc (N).**, **Mrs. Gomathi M.Sc (N).**, **Mrs. Usha M.Sc (N).**, **Mrs. Nisha Wilson M.Sc (N).**, **Mrs. Manjula Devi M.Sc (N).**, **Mrs. Leema Rose M.Sc (N).**, for giving me motivation during the course of my study.

I express my sincere thanks to **Prof. Mallika Rajadurai M.Sc (N).**, **(Ph.D).**, **Mrs. Victorial Selvakumari.C, M.Sc (N)**, our former principal, **Prof. Mr. Victor Devasirvadam M.Sc (N).**, **(Ph.D).**, our former Research Co-ordinator.

My sincere thanks to **Prof. M. D. Shanthi M. Sc (N).**, **Prof. .B.Sree Ranjini M. Sc and Prof. S.Anita Mary Leena M.Sc(N).**, who gave valuable suggestions and opinions for my study.

My sincere thanks goes to **Dr. J. Sinthikaiyal, M.A., M.Phill., P.hD.** Principal and the staff members of Women's Christian Collge. Nagercoil,at Kanyakumari District for granding permission and guidance to conduct research study. in their esteemed institution.

My sincere thanks to **Mr. C. Vijaya Kumar, M.Sc., MLIS, M.Phil.,** Librarian, and **Mr. Shakthivel B.Lit., CLISC** Asst. Librarian, Sara Nursing college, for their timely support through out my study.

My sincere thanks to **Mr. Senthil Kumar , M.A.,M.Phil and Mr.John Luthur MA, M.Ed, M.Phil.,** for his timely work in Tamil and English editing my research contend successfully.

My sincere thanks to all Staff of **Vijay Xerox, Dharapuram,** for their full co-operation to complete this research project.

I wish to thank all the good hearts and the **research subjects** who have participated, whole heartedly in the study and for their valuable co -operation which made the study effective.

Most importantly, none of this would have been possible without the love and patience and support of my beloved parents **Mr.S. Neasaiyan, and Mrs.N.Saroja Bai,** My loving Brother **N. Ladwin Jose M.B.A.,** for their great blessings, affections, encouragement and support and help to me in the successful completion of my thesis.

It is my pleasure I wish to express my deep sense of gratitude to all **My classmates** for their support, suggestions and encouragement during the course of my study. My special thanks to **Mr. J. Jenkins, Mr. Dinesh Kumar, Mr. R. Pakkiya Raj, M.A and Miss. Mahila.**

TABLE OF CONTENTS

CHAPTER	CONTENT	PAGE NO
I	INTRODUCTION	1-11
	Need for the study	4
	Statement of the problem	7
	Objectives	7
	Hypothesis	7
	Operational Definitions	8
	Assumptions	9
	Delimitations	9
	Conceptual framework	10
II	REVIEW OF LITERATURE	12-21
III	METHODOLOGY	22-27
	Research approach	22
	Research Design	22
	Variables	22
	Description of settings	22
	Population	22
	Sampling	23
	Description of the tools	23
	Validity and reliability	25
	Pilot study	26
	Method of data collection	26
	Plan for data analysis	27
IV	DATA ANALYSIS AND INTERPRETATION	28-39
V	DISCUSSION	40
VI	SUMMARY, CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS	43
	BIBLIOGRAPHY	48
	ANNEXURES	52

LIST OF TABLES

TABLE NO	TITLE	PAGE NO
4.1	Distribution of subjects according to demographic variables	29-30
4.2	Effectiveness of Computer Assisted Instruction on knowledge and attitude among undergraduate students	34
4.3	Correlation between posttest level of knowledge and attitude among undergraduate students.	35
4.4	Association between posttest level of knowledge and the demographic variables	36-37
4.5	Association between posttest level of attitude and the demographic variables	38-39

LIST OF FIGURES

FIGURE NO	TITLE	PAGE NO
1.1	Conceptual Frame work based on J.W. KENNYS open system Model (1969)	11
4.1	Distribution of subjects according to their level of knowledge before and after Computer Assisted Instruction.	32
4.2	Distribution of subjects according to their level of attitude before and after Computer Assisted Instruction	33

LIST OF ANNEXURE

ANNEXURE	TITLE	PAGE NO.
A	Letter seeking permission to conduct a research study	i – ii
B	Tool for data collection	iii – xxv
C	Computer Assisted Instruction Regarding Breast Self Examination	xxvi – xxix
D	Letter requesting opinion and suggestion of experts for content validity of the research tool	xxx
E	Certificate of validation	xxx i
F	List of experts	xxx ii
G	Certificate for editing	xxx iii – xxx iv

CHAPTER - I

INTRODUCTION

**“Help Prevent Breast Cancer” on the back and on the front stencil in,
“An ounce of prevention is worth a pound of cure”.**

-Dadger

The breast refers to the front of the chest or, more specifically, to the mammary gland. The mammary gland is a milk producing gland. It is composed largely of fat. Within the mammary gland is a complex network of branching ducts. These ducts exit from sac-like structures called lobules, which can produce milk in females. The ducts exit the breast at the nipple. either of the pair of mammae occurring on the chest in humans and having a discrete areola around the nipple, especially the mammae of the female after puberty, which are enlarged and softened by hormonally influenced mammary-gland development and fat deposition and which secrete milk after the birth of a child, the breasts of males normally remain rudimentary.

- (Gonzaga, 2005)

Breast problems are significant health concerned to women. In a women's life time there is a one in eighth chance that she will be diagnosed with breast cancer. Whether benign or malignant intense feeling of shock, fear and denial often accompany the initial discovery of a lump or change in the breast. These feelings are associated both with the fear of survival and with the possible loss of a breast. Thought history the female breast has been regard as a symbol of beauty, sexuality and motherhood. The potential loss of breast or part of a breast may be devastating for many women because of the significant psychological, social, sexual and body image implications associated with it.

- (N.D.Nurs, 2003)

Breast Self Examination is a procedure performed by an individual to physically and visually examine herself for changes in the breast under arm areas of the body. Breast Self Examination is an important of component health promotion and maintenance. Providing education and encouraging the women to perform Breast Self Examination is recommended to decrease the mortality rates from breast disorders.

Performing monthly Breast Self Examination was first advocated by the Colombia University surgeon Cushman experts recommended the women over age of 20 perform a monthly Breast Self Examination. It is important to perform breast self examination is performed routinely to know about her breasts whether normal or to identify quickly any thing abnormal.

Breast Self Examination is an important part of general Breast health. Breast Self Examination is the one of the important steps for identifying breast tumours at an early stage. It will most likely be the only feasible approach to wide population coverage as it is a cheap and easy method.

- **(E.T.Owoaje, 2010)**

Breast Self Examination is a simple and inexpensive tool and can be performed by women themselves. Some studies have shown that practicing Breast Self Examination helps to detect breast cancer lumps of smaller sizes and leads to early diagnosis of breast cancer. It is very important that you take an active part in the early detection of Breast cancer. Breast Self Exam ,Similarly, you should examine your breasts once a month. It should be noted that each woman's Breasts are different. It is likely that changes occur in the breast due to factors such as age, menstrual

cycles, pregnancy, menopause, birth control pills or other hormones. It is normal that resulting uneven breasts to the touch and little bumps are noticed. It is also common to swell or become more sensitive to the touch before or during menstruation.

- **(Honora Lee Wolfe, 2011)**

Breast Self Examination remains the most controversial of commonly recommended strategies for Breast cancer screen although it is simple, non-invasive, requires little time , has no medical cost and is intuitively attractive.

- **(Alexandria cancer registry, 1997)**

Breast Self Examination have been promoted for many years as screening methods to diagnose Breast cancer at an early stage, in order to decrease the risk of dying from Breast cancer.

- **(Kosters JP and Gotzsche PC, 2008)**

Breast cancer is the only cancer you can detect early through a monthly Breast Self Examination. No woman wants to hear the words “you have got breast cancer”. You definitely look better have to breasts. And if you look better and feel better you will definitely live better. Thus we have learn how to improve our odds of not having breast cancer at all.

- **(Cecily Alfred Paul, 2008)**

The teaching on Breast Self Examination has significantly more knowledge used better techniques and the women were able to correctly identify more lumps in a breast more than those who did not receive the teaching. Nurses are playing a pivotal role in teaching the patient to identify the problems. Breast Self Examination is an

that should be perfect for nurses who can promote monthly Breast Self Examination by supporting realistic believes about screening and cancer as well as demonstrating Breast Self Examination so that they can do it them selves without consulting physician.

- (Mary Periard and Brenda Knaack, 2003)

NEED FOR THE STUDY

Breast cancer is the most common cancer and second leading cause of cancer death in women around the world. In Indian women, breast cancer is the second most common cancer, next only to carcinoma cervix. But in many urban areas in India, the breast cancer has recently emerged as the leading cancer in women.

- (Mc Cready.J, 2011)

Breast cancer accounts for about 20% cancers in Indian women. It is a more common then cancer cervix in the developed as well as in developing countries. Breast cancer constitutes about 19-34% of all cancer cases among women in India. Age adjusted incidence of breast cancer in India varies from 16 to 25 per lakh population and approximately 80,000 new cases of breast cancer are diagnosed every year. With the rapid urbanization and changing lifestyle, the numbers are likely to increase further.

- (Jaydip.R Oza, 2011)

Breast cancer is the second leading cause of cancer death today. It is the most common cancer among women. New cases of invasive breast cancer were diagnosed in 2007. According to breast cancer society, breast cancer death rates have been dropping steadily since 1990, because of earlier detection and better treatment.

- (American cancer society 2010).

Cancers in all forms are responsible for about 12% of deaths throughout the world. Globally breast cancer is the most common malignant neoplasm among women. Breast cancer causes 3,76,000 deaths a year worldwide about 900,000 women are diagnosed every year with the disease.

- (M.O.Balogun, 2010)

Carcinoma of the breast is one of the leading causes of death in women aged 30 years and above. It reduces the life expectancy of the population at risk especially those between 31 and 50 years. Breast cancer is becoming more common worldwide. The incidence of breast cancer is rising more rapidly in population groups that enjoyed a low incidence of the disease. Breast cancer has become the Commonest malignancy (excluding skin cancers) in women worldwide. It has unfavorable prognosis in women aged forty years or younger.

- (T.M.Akande and A.G. Salaudeen, 2009)

There is a rising incidence of breast cancer in India. According to The International Agency for Research on Cancer, which is part of the World Health Organisation, there were approximately 79,000 women per year affected by breast cancer in India in 2001 and over 80,000 women in 2002.

- (WHO, 2001-2002)

There are no comprehensive national, regional or local level statistics about the incidence of breast cancer in Indian women. Breast cancer is the selected most common cancer in Indian women. The incidence is more in urban than rural women. It is more prevalent in the higher socio-economic groups. Women of the Parsi

community face a higher risk. The average incidence rate varies from 22-28 per 100,000 Women per year in urban settings to 6 per 100,000 Women per year in rural areas.

- (Indian council of medical research, 2002)

Prevalent misconceptions of pain associated with any cancerous breast lump and incurability of cancer are unaddressed issues in developing countries. Creating awareness on mass scale about these facts that any lump in the breast even a painless one can be cancer as well as curability of early diagnosed breast cancer is the need of the hour. This strategy is relatively easy, inexpensive and practicable in resource restricted countries till standard screening tools are universally available, affordable and accessible to masses.

- (Parkin DM and Bray F, 2005)

Hence, the status of Breast Self Examination as a screening modality on mass scale is debatable. Furthermore, even in women performing Breast Self Examination regularly, many early detected tumors are found incidentally and not during self examination. Thus conventional screening tools are impracticable in developing countries highlighting the need for novel approaches.

- (National Cancer Registry Programme, 2001)

This review is given impact to the researcher to conduct a study to evaluate the effectiveness of Computer Assisted Instruction on knowledge and attitude regarding Breast Self Examination among Undergraduate students.

STATEMENT OF THE PROBLEM

A study to evaluate the effectiveness of Computer Assisted Instruction on knowledge and attitude regarding Breast Self Examination among Undergraduate students at selected college in Kanyakumari District.

Objectives

- ▶ To assess the level of Knowledge regarding Breast Self Examination among Undergraduate students before and after Computer Assisted Instruction.
- ▶ To assess the level of Attitude regarding Breast Self Examination among Under graduate Students before and after Computer Assisted Instruction.
- ▶ To evaluate the effectiveness of Computer Assisted Instruction on Knowledge regarding Breast Self Examination among Undergraduate students.
- ▶ To evaluate the effectiveness of Computer Assisted Instruction on Attitude regarding Breast Self Examination among Undergraduate students.
- ▶ To correlate the post test level of Knowledge and Attitude of Computer Assisted Instruction regarding Breast Self Examination among Undergraduate students.
- ▶ To associate the post test level of knowledge regarding Breast Self Examination with their selected demographic variables.
- ▶ To associate the post test level of attitude regarding Breast Self Examination with their selected demographic variables.

Hypothesis

H₁: There will be a significant difference in the level of Knowledge regarding Breast Self Examination among Undergraduate student before and after Computer Assisted Instruction at ($p < 0.05$) level of significance.

- H₂:** There will be a significant difference in the level of attitude regarding Breast Self Examination among Undergraduate students before and after Computer Assisted Instruction at ($p < 0.05$) level of significance.
- H₃:** There will be a significant correlation between posttest knowledge and attitude regarding Breast Self examination among Undergraduate students.
- H₄:** There will be a significant association between posttest Knowledge and selected demographic variables at $P < 0.05$ level of significance.
- H₅:** There will be a significant association between posttest Attitude and selected demographic variables at $P < 0.05$ level of significance.

Operational Definition

Effectiveness

It refers to the statistically significant change in the level of knowledge and attitude regarding Breast Self Examination after Computer Assisted Instruction among Undergraduate students.

Computer Assisted Instruction

Refers to planned teaching programme regarding the selected approach of Breast Self Examination guidelines which is imported through the Computer as teaching aid.

Knowledge

It refers to the written response of the Undergraduate students regarding Breast Self Examination as measured by structured knowledge questionnaire.

Attitude

It refers to the way of thinking of Undergraduate students about Breast Self Examination as measured by 5 point likert scale.

Breast Self Examination

It implies the ability to perform self examination of both breast by inspection and palpation using one's own hands for the purpose of detecting any abnormality.

Undergraduate Students

Refers to the students who all are involved in educational activities specially bachelor degree and their age group between 18 to 21years.

ASSUMPTION

- ▶ Undergraduate students may have inadequate Knowledge regarding Breast Self Examination.
- ▶ Computer Assisted Instruction may improve the level of knowledge on Breast Self Examination among Under graduate students.
- ▶ Transmission of health information may improve the attitude regarding Breast Self Examination among Undergraduate students.

DELIMITATION

- ▶ This study is limited to Undergraduate students only.
- ▶ Data collection period is limited to 4 weeks only.

CONCEPTUAL FRAMEWORK

Conceptual framework helps to make the research finding meaningful and generalizable. It allows the researcher to knit together the observation and facts in an orderly scheme.

This study was based on J.W.KENNYS open system model. All living systems are open in that there is a continual exchange of matter energy and information. Open systems have varying degree of interaction with the environment from which the system receives input and gives back output in the form of matter, energy and information for survival. All system must receive varying types and amount of matter and energy and information.

Concepts

The main concepts of the systems are Inputs and Throughput and Output. Input refers to matter, energy, through the Boundary. Throughput refers to processing where the systems transform the energy and information. Output refers to matter, energy and information that are continuously processed through the system.

- **INPUT :** Refers to Computer Assisted Instruction regarding knowledge and attitude of Breast Self Examination among Undergraduate students.
- **THROUGHPUT:** Refers to transformation of knowledge and attitude regarding Breast Self Examination.
- **OUTPUT:** Improvement of knowledge and attitude of Undergraduate students.

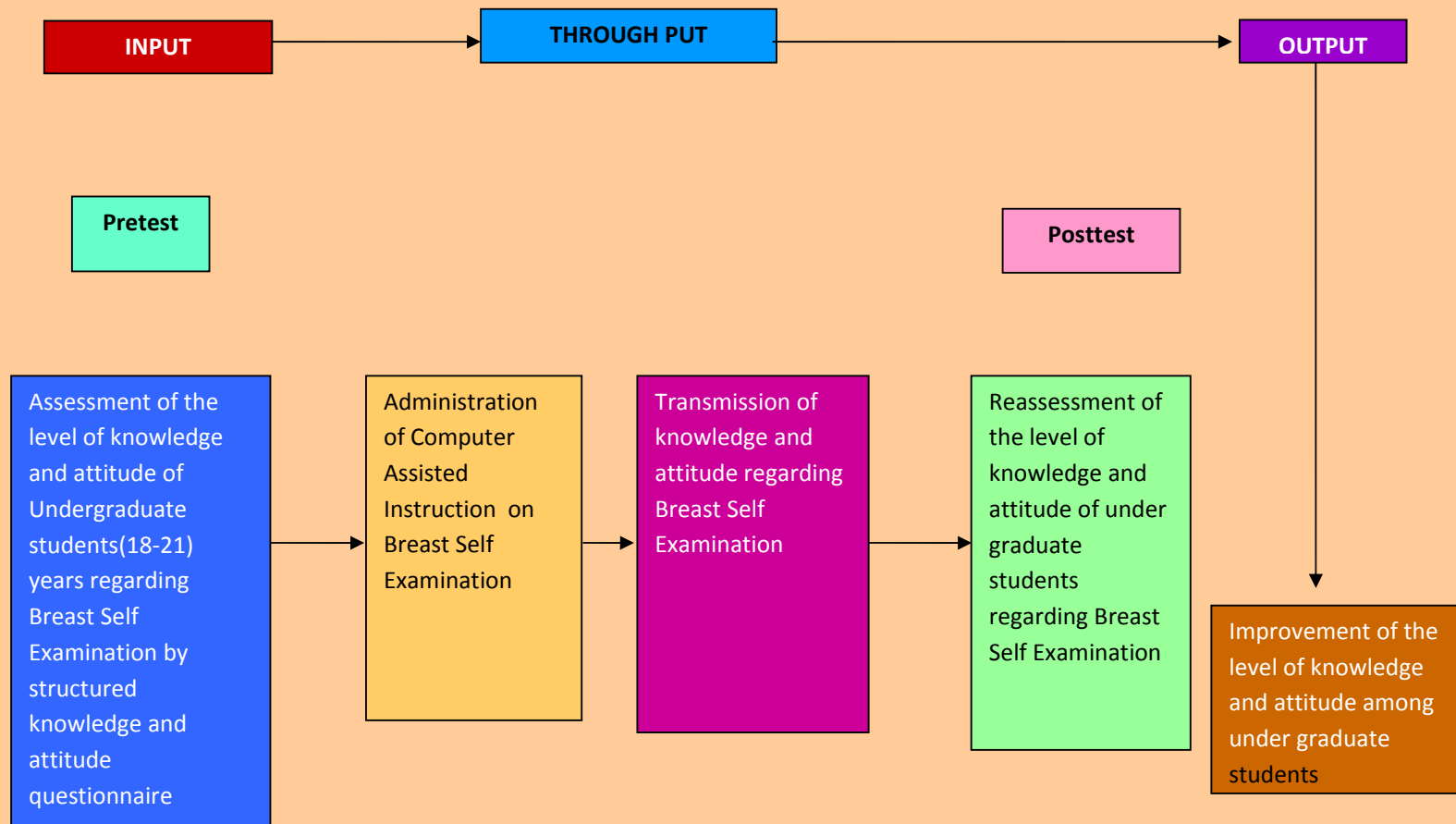


FIGURE 1.1 : CONCEPTUAL FRAME WORK BASED ON MODIFIED J.W.KENNYS OPEN SYSTEM MODEL (1969)

CHAPTER - II

REVIEW OF LITERATURE

The review of the literature entails systematic identification, location, and summary of the written materials that contains information relevant to the research topic was done to gain inside and to collect maximum information for laying the foundation of the study.

The purpose of the review of the literature is to obtain the knowledge and attitude about the Breast Self Examination.

The reviews of literature in the study are organized as follows:

- 1) Literature related to Breast Self Examination.
- 2) Literature related to knowledge and attitude about Breast Self Examination.
- 3) Literature related to early detection of Breast cancer.
- 4) Literature related to Computer Assisted Instruction on Breast Self Examination.
- 5) Literature related to Structured Teaching Programme.

1. Literature related to Breast Self Examination

Dahlui M and Humphrey, (2011) conducted study on Breast Self Examination performance among 60 female staff of University of Malaya. A total of 1598 questionnaires were posted to all female staff, aged 35 years and above. There was a significant relationship between Clinical Breast Examination and Breast Self Examination whereby those who had Clinical Breast Examination were twice more likely to do Breast Self Examination. Nineteen percent (84 respondents) of those who did Breast Self Examination claimed they had detected a breast lump. Of these, 87% (73) had gone for Clinical Breast Examination and all were confirmed as such.

Guleser GN, (2009) conducted the study on The knowledge and practice of Breast Self Examination among healthcare workers in Kayseri, Turkey. The sample group included 246 healthcare workers. The scores of the women who stated that they practiced Breast Self Examination were significantly higher ($P = .000$) than those who reported that they did not. Healthcare workers need to improve their knowledge of and sensitivity toward Breast Self Examination.

Wilke LG, (2008) conducted the study on Breast self-examination, defining a cohort still in need. 147 high-risk women were enrolled from 2004 to 2007. The sensitivity, specificity, and predictive value of Breast Self Examination to detect Breast cancer were 58.3%, 87.4%, and 29.2%, respectively. The sensitivity, specificity, and predictive value of a Breast Image Reporting and Data System (BI-RADS) score of ≥ 4 on MRI were 66.7%, 88.9%, and 34.8%, respectively.

Kara B, (2008), Health beliefs and Breast Self Examination in a sample of Turkish nursing students and their mothers. The data were obtained from 392 participants, including female nursing students ($n = 196$) and their mothers ($n = 196$) in Ankara, Turkey. The percentage of nursing students who performed Breast Self Examination regularly was statistically higher than that of their mothers.

B J Harvey, A B Miller, C J Baines, and P N Corey, (2006) conducted a study of Breast Self Examination (BSE). It becomes an important and necessary approach to detecting this disease in its early stages in order to limit its resultant morbidity and mortality. This study was conducted in eight health centres located in Bandar Abbas, Iran. The sample consisted of 240 eligible women. A self administered questionnaire. The results; women who performed Breast Self Examination were significantly higher compared with women who did not practice Breast Self Examination ($p < 0.03$). Furthermore, perceived barriers were lower among those who

had performed Breast Self Examination ($p < 0.001$). Logistic regression analysis indicated that women who perceived fewer barriers (OR: 0.70, 95% CI: 0.63-0.77, $p < 0.001$) and had higher self-efficacy (OR: 1.08, 95% CI: 1.02-1.13, $p = 0.003$) were more likely to perform Breast Self Examination ($R^2 = 0.52$).

Demirkiran F, (2007) conducted a study on How do nurses and teachers perform breast self-examination: Are they reliable sources of information? Two hundred and eighty nine women working in Aydin. The knowledge of nurses about Breast Self Examination was higher than that of teachers (81.5% versus 45.1%; $p < 0.001$).

Park , (2006) conducted a study to determine the effects of action oriented Breast Self Examination education on knowledge, self-efficiency, performance and competence in nursing students. A total of 53 students selected from a school of nursing, out of that 20 students assigned to control group and 26 students assigned experimental group. The study was conducted using a non-equalant pre and post-test questionnaire of time serial quasi – experimental design was adopted in the study. The study revealed that a general lack of knowledge and practices related to Breast Self Examinations among nursing students, and it also revealed that the developed educational booklet about breast self examination test had an obvious effect on improving nursing students knowledge and practices.

Ng KK, (2005)conducted a study on Practice of Breast Self Examination among high risk Chinese women in Hong Kong. Only 57 women (52%) were practices. The overall confidence rate was 35%, but the rate was 43% among those who performed complete Breast Self Examination.

J. Mikhel and Dnsr N.C.N.S, (2002) conducted a study to investigate factors and beliefs that may be related to the practice of the Breast Self Examination among a group of Jordanian Women”. A total of 519 women were selected from two

major universities in Jordan by using a stratified random sampling method. The study result indicated that the majority sample population i.e. 67% had heard or read about Breast Self Examination. The study concluded that benefits, susceptibility and motivation influenced the intention to perform Breast Self Examination in the future.

Devine SK and Frank DI, (2000) conducted a study to “ determine the personal behavior and professional practices of nurses in the use of Breast Self Examinations and to discuss implications for the advanced practice of nurse.” A total of 300 nurses and nursing students were selected for the study and assisted by using questionnaire method. The study result showed that almost all the nurses had performed Breast Self Examination at least once, and the majority believed that it was the role of the nurses to teach Breast Self Examination. The study concluded that the nurses are doing Breast Self Examinations and most of them are not teaching others.

2. Literature related to Knowledge and Attitude about Breast Self Examination

Kiguli-Malwadde Elsie (2010) conducted the study level of awareness about breast cancer, a cross-sectional study was designed to assess the knowledge, attitude and practices of community-dwelling women in Nigeria. One thousand community-dwelling women were recruited for the study, 2000 using interviewer-administered questionnaire. The results showed that Mean knowledge score was 42.3% and only 214 participants (21.4%) knew that breast cancer presents commonly as a painless breast lump. Practice of Breast Self Examination (BSE) was low; only 432 participants (43.2%) admitted to carrying out the procedure in the past year. Only 91 study participants (9.1%) had Clinical Breast Examination (CBE) in the past year. Women with higher level of education ($X^2 = 80.66$, $p < 0.0001$) and those employed

in professional jobs ($X^2 = 47.11$, $p < 0.0001$) were significantly more knowledgeable about Breast cancer.

Osime OC and Prem, (2009) conducted the study on Knowledge attitude and practice about breast cancer among civil servants in Benin City, Nigeria. 400 women were selected. The results showed that Two hundred and seventy seven (72.0%) respondents had tertiary level of education. Sixty six (17.1%) respondents were in the 30-34-year age group. Three hundred and twelve (81.0%) respondents knew correctly that breast lump is usually the first symptom of presentation of breast cancer.

Simi A and Wolef, (2009) conducted the study on Knowledge and attitudes of Breast Self Examination in a group of women in Shiraz, Southern Iran. Totally 300 women aged between 25-54 years were taken as a sample. Of those who performed Breast Self Examination, 9 (5.6%) found an abnormal examination; 6 (3.8%) were found positive after further evaluation. Remaining women could not perform Breast Self Examination.

Memis S, (2009) conducted a study on Knowledge, attitudes, and behaviors of nursing and midwifery students regarding Breast Self Examination in Turkey. The samples were 244 female students of nursing and midwifery were interviewed Breast Self Examination. The results was Breast Self Examination performed (57%), not having any history of problems in the breast (39%), and forgetfulness about Breast Self Examination (18%).

Jclin Nurs, (2009) conducted the study on Knowledge and Attitudes to Breast Cancer and Breast Self Examination among Female Undergraduate in a State in Nigeria. 740 samples were selected. Systematic random sampling technique was adopted for subject selection. Self administered questionnaire was used as the data instrument. The results was only two hundred and fifty seven (36.7%) had good

knowledge of the cause of breast cancer among the respondents. Less than half (45.5%) of respondents had good knowledge of symptoms of cancer of the breast. Five hundred and twenty seven (75.3%) respondents viewed breast cancer as a frightful disease. Five hundred and seventy three (81.9%) respondents had heard of Breast Self Examination.

M.O. Balogun, (2008) conducted the study on Knowledge and Practice of Breast Self Examination among Female Traders in Ibadan, Nigeria. Total sample of 281 women in Sango market, Ibadan. Female traders were interviewed using interviewer administered questionnaires. One hundred and ninety two (68.3%) of the traders were not aware of Breast Self Examination while 89(31.7%) were aware and 51 (18.1%) of the traders had ever checked their breast. The level of awareness of Breast Self Examination was highest(38.7%).

Dundar PE and Abdul Khon, (2007) conducted the study on knowledge and attitudes of Breast Self Examination and mammography in a group of women in a rural area in western Turkey. 244 women were recruited by means of cluster sampling in this study. Level of Breast cancer knowledge was the only variable significantly associated with the Breast Self Examination and mammography practice ($p = 0.011$, $p = 0.007$).

Aluabu – Salem and Abdulla Hassan, (2007) conducted the study on to identify and investigate the knowledge and practice of Breast Self Examination with the influencing factors”. A total of 80 female nurses from Prince Rasheed Military Hospital were selected for the study. The data was collected by questionnaire and analyzed by using descriptive statistics. The study results indicated 52% of the sample performs Breast Self Examination. The study concluded positive correlation was found between nursing work experience and their practice in Breast Self Examination.

Sohn L, (2005) conducted the study on Knowledge and use of preventive health practices among Korean women in Los Angeles. 656 women were interviewed. Being married ($P < 0.0001$) and insured ($P < 0.05$) were significantly associated with receipt of preventive health services.

3. Literature related to early detection of breast cancer.

Karatay G, (2010-2011) conducted the study on Cognitive and dynamic effects of training given to women at risk of breast cancer. The women in the risk group of about 65 were given five sessions of training split into groups of 12-13 persons. One month after the training program had been completed, women were re-evaluated and 77.5% had conducted Breast Self Examination (BSE) at least one time, and 65.0% of them have passed through medical breast diagnosis and scanning tests by applying to hospital.

Jaydip R Oza, Jagruti D Prajapati and Rohit Ram, (2011) conducted a study on awareness toward the early detection of breast cancer on nursing staff in civil hospital, Ahmedabad, Gujarat, India. 250 nurses were selected and taught about knowledge, attitude & practices of nursing staff towards the early detection of breast cancer. The results of the study indicated that 74% of the nurses knew that early detection of breast is possible. 71% of the nurses would like to go for early detection by mammography. Only 7.2% of nurses had undergone investigation for early detection. 96% of nurses wanted information regarding the breast cancer.

Jenkinson RGN, Tracey MC, Cready (2006) conducted the study on a cross-sectional descriptive study. The study was carried out among female health workers in the two major Government health institutional in Benin city, Nigeria. 393 female health workers completed the questionnaires. Giving a response rate of 77.8%

one hundred and two 26% were Doctors, 254 (64.6%) nurses and 37 (9.4%) were radiographers laboratory scientists and pharmacists. The results, a high proportion of our responders had very poor knowledge about risk factors for breast cancer (55%). The awareness of mammography as a screening method was found. Mammography practice of only 3.1% was found among those above 40years of age who qualified for routine annual screening. Relatively low knowledge(45.5%) about Breast Self Examination as a screening method was found.

Alkhasawneh IM, (2007) conducted the study on Knowledge and practice of breast cancer screening among Jordanian, nurses. 395 female nurses working in different healthcare settings. Their ages ranged from 21-51 years ($X = 31$); nursing experience ranged from 1-30 years ($X = 16$) The results showed that. Nurses had low mean levels of knowledge about early detection and facts related to breast cancer in Jordan ($X = 51\%$, $SD = 19$). Although 86% ($n = 343$) of the nurses reported performing Breast Self Examination, only 18% ($n = 62$) reported doing so on a monthly basis.

Cohen M, (2002) conducted the study on first-degree relatives of breast-cancer patients: cognitive perceptions, coping, and adherence to Breast Self Examination. 80 women were selected Breast Self Examination was also associated with higher perceptions of (a) control over prevention, (b) risk for breast cancer, and (c) higher levels of state anxiety. Perception of control, problem-focused coping, depression, and anxiety predicted 35% of the variance in adherence to Breast Self Examination.

Abdel-Fattah M, (2000) conducted the study on Breast Self Examination practice and its impact on breast cancer diagnosis in Alexandria, Egypt. This study estimated the frequency of Breast Self Examination practice and its possible relation

to the stage of the disease at diagnosis and patient related delay in diagnosis among newly diagnosed breast cancer patients. Breast Self Examination was practiced in 10.4% of cases.

4. Literature related to Computer Assisted Instruction regarding Breast Self Examination

Reis, Janet P.H, Trockel, Micky MS, and King, (2004) conducted a study to Computer Training programme in Breast Self Examination a test in a community health center. Fifty-eight women recruited from a community health center completed Computer training program on Breast Self Examination. Women using the computer program as compared to the pamphlet group reported a higher sense of self-efficacy for being able to perform a Breast Self Examination immediately after their educational session and 1 month later. However, the increase in self-efficacy for the computer group diminished over 4 weeks, underscoring the importance of an environment that reminds and reinforces learning for women about the performance of regular Breast Self Examination. The increase in sense of self-efficacy to perform Breast Self Examination with roughly 20 minutes of computer-based training and the partial maintenance of that self-efficacy 30 days later suggests the utility of incorporating short, focused interventions in busy primary healthcare settings.

Leight SB, Leslie NS, (1998) conducted a study to development of a competency based on curriculum for training women in Breast Self Examination skills. It is expected that there will be 178,700 new cases of breast cancer diagnosed in American women during 1998. This corresponds to a new breast cancer diagnosis every 3 minutes. In the absence of any preventive measures at this time, control of breast cancer morbidity and mortality must be sought through early detection and

treatment. A competency-based training curriculum in Breast Self Examination was developed that incorporated three specific skill components: a systematic pattern of search; palpation topography discrimination training; and use of appropriate finger pressure for examination. A Computer Assisted breast model was built and piloted for use in this study. The design, implementation, and validation of this program as a platform to train women and advanced practice nurses in Breast Self Examination is described.

5. Literature related to structure teaching programme on Breast Self Examination

Shalini, Divya Varghese and Malathi Nayak, (2011) conducted a study awareness and impact of education on Breast Self Examination among college going girls. An Interventional study was conducted among Female in-patients RMMCH using a Structured teaching schedule on Breast Self Examination . 21 Women were selected from different wards of RMMCH and structured teaching schedule was given to all women individually and the effect of teaching programme was assessed by giving scoring to each of the steps. The results were evaluated immediately and after 24 hrs. The results was 52.9 % of women could perform Breast Self Examination adequately, when asked immediately and 64.7 % of women could perform adequately after a period of 24 hrs

CHAPTER-III

METHODOLOGY

Research Approach

Quantitative evaluative approach was used in this study

Research Design

The research design used in this study was pre-experimental one group pretest posttest design.

O₁ X O₂

O₁ - Pretest assessment of knowledge and attitude regarding Breast Self Examination

X - Intervention (Computer Assisted Instruction)

O₂ – Post test assessment of knowledge and attitude regarding Breast Self Examination

Variables

Independent variables: Computer Assisted Instruction

Dependent variables: Knowledge and Attitude

Description of the study setting

This study was conducted at Women's Christian College, Kanyakumari District. About 1,975 students were studying in this college. It is located about 350 kms away from Sara nursing college, Dharapuram.

Population

The population targeted for the study was 1,975 Undergraduate students of Arts and Science between the age group of 18 to 21 years.

SAMPLING

Sample

Sample was Undergraduate students studying in Women's Christian College with the age group of 18 to 21 years.

Sample size:

The total sample size was 60 Undergraduate students studying in the Women's Christian College between the age group of 18 to 21 years.

Sampling technique:

Non-probability Convenience Sampling Technique was used for this study.

Criteria for sample selection

In this study the following criteria were set to include samples in the study

Inclusion criteria

1. Female students aged between 18-21 years
2. Students who were able to read and understand English and tamil

Exclusion criteria

1. Undergraduate students who are at the age above 22 years

Description of the tool

The Instrument used for data collection consists of three sections as follows:

Section A: Demographic variables

Section B: structured knowledge questionnaire to assess the level of knowledge

Section C: 5 point Likert Scale to assess the level of attitude

Section A: Contents include in this section are age , religion, age at menarche, menstrual cycle, area of residence, type of family, food habits, and previous source of knowledge gained related Breast Self Examination,

Section B: It consist of 20 structured knowledge questionnaire regarding Breast Self Examination. The questionnaire was prepared in English and translated into tamil and data is collected through interview method

Section C: Consist of 7 Positive and 8 Negative statements regarding Breast Self Examination. The 5 point Likert scale was prepared and the data was collected through interview method.

SCORE INTERPRETATION

Section B: There were a total of 20 structured knowledge questionnaires in section B. Each correct response carried one score and each wrong response carried zero score. The total score on knowledge was 20. The score is converted into percentage and interpreted as follows,

Breast Self Examination knowledge observed score/total score*100

75% and Above	Adequate knowledge
51-74%	Moderate adequate knowledge
50% and below	Inadequate knowledge

Section C: The total positive statements were 7 and negative statements were 8. The total score for the attitude scale was 75

Positive statement	score	Negative statement	score
Strongly Agree	5	Strongly disagree	1
Agree	4	Disagree	2
Uncertain	3	Uncertain	3
Disagree	2	Strongly agree	4
Strongly disagree	1	Agree	5

75% and Above

Favorable attitude

51-74%

moderately favorable attitude

50% and below

unfavorable attitude

Validity

Totally 4 experts have given validity (3 Nursing experts, obstetrics and gynecologist department) and one obstetrician and Gynecologist. Given suggestions were incorporated.

Reliability

To ensure the reliability of the tool, it has been administered to 10 students. Reliability of the tool was established by test re-test method and the reliability was($r=0.9$) Hence the tool was reliable.

Pilot study

In order to find out feasibility and practicability, a pilot study was at Annai Fathima Teacher Training College Manakkadavu, Dharapuram. For a period of 1 week (16.6.2011-23.6.2011) among 10 Undergraduate students. The study was found feasible to conduct.

Method of data collection

Ethical considerations

The study was conducted after the approval of the dissertation committee of sara nursing college, Dharapuram. A written permission to conduct the study was obtained from concerned principal of women's Christian college Nagercoil, at Kanyakumari District. Oral consent of each study subjects was obtained before data collection.

Data collection procedure

The present study was conducted among Undergraduate students in Women's Christian College Nagercoil, at Kanyakumari District. Pre-experimental one group pre test post test design was used for this study. Permission was obtained from the principal of Women's Christian College. Data collection was done over the period of 4 weeks. Oral consent was obtained from the subjects. The investigator had selected 60 Undergraduate students by using non-probability convenience sampling technique. Pretest was done on day Ist to assess the level of knowledge through structure knowledge questionnaire and attitude was assessing by using 5 point likert scale. Then Computer Assisted Instruction administered to the subjects regarding Breast

Self Examination for 30 mints on the same day. Then the posttest level of knowledge and attitude was assessed after 15 days.

Plan for data analysis

Descriptive statistical analysis was used for categorical data, Paired “t” test was used to evaluate the effectiveness of Computer Assisted Instruction, Inferential statistics Karl Pearson correlation Coefficient was used to find out the relationship between the knowledge and attitude, Chi-square test was used to find out the association between the post test level of knowledge and attitude regarding Breast Self Examination.

CHAPTER - IV

ANALYSIS AND INTERPRETATION

In this chapter, the data collected were systemically processed, tabulated and made suitable for analysis and interpretations. The results obtained were classified, tabulated and the following analyses were performed in fulfilling the objectives of the study.

The data analysis presented as following section

- Section A -** Distribution of subjects according to their demographic Variables.
- Section B -** Distribution of subjects according to their level of knowledge before and after Computer Assisted Instruction
- Section C -** Distribution of subjects according to their level of attitude before and after Computer Assisted Instruction
- Section D -** Effectiveness of Computer Assisted Instruction on knowledge and attitude regarding Breast Self Examination
- Section E -** Correlation between posttest level of knowledge and attitude among Undergraduate students
- Section F -** Association between the posttest level of Knowledge and demographic variables.
- Section G -** Association between the posttest level of Attitude and the demographic variables.

SECTION – A

Table 4.1 : Distribution of subjects according to their demographic variables

(n=60)

S. No	Demographic variables	f	(%)
1.	Age (in years)		
	1. 18 years	38	63.3%
	2. 19 years	15	25%
	3. 20 years	4	6.6%
	4. 21 years	3	5%
2.	Religion		
	1. Hindu	35	58.3%
	2. Christian	19	31.6%
	3. Muslim	6	10%
3.	Age at Menarche		
	1. below10years	0	0
	2. 11-12 years	13	21.6%
	3. 13-14years	33	55%
	4. 15-16years	14	23.3%
4.	Menstrual Cycle		
	1. Regular	52%	86.6%
	2. Irregular	8%	13.3%
5.	Area Of Residence		
	1. Urban	27	45%
	2. Rural	33	55%

6.	Type of family		
	1. Nuclear	47	78.3%
	2. Joint	9	15%
	3. Extended	4	6.6%
7.	Food habits		
	1. Vegetarian	42	70%
	2. Non-Vegetarian	18	30%
8.	Previous source of knowledge gained related Breast Self Examination through.		
	1. Mass media	30	50%
	2. Health educators	12	20%
	3. Friends	9	15%
	4. Family members	9	15%

Table 4. 1 showed that according to their age majority of the subjects shows that 38(63.3)% were in the age group of 18 years.

Considering their religion majority of the subjects 35(64)% of the students were Hindu. Considering their age at menarche status of the subjects . 33(55)% of the students were 13-14years.

Considering their menstrual cycle status of the subjects 52(86.6)% of the students were regular. Considering their area of residence status of the subjects 33(55)% of the students were rural.

Considering their type of family status of the subjects 47(78.3)% of the students were nuclear family. Considering their food habits status of the subjects 42(70)% of the students were vegetarian.

Considering their previous source of knowledge gained related Breast Self Examination through, status of the subjects 30(50)% of the students were mass media.

SECTION - B

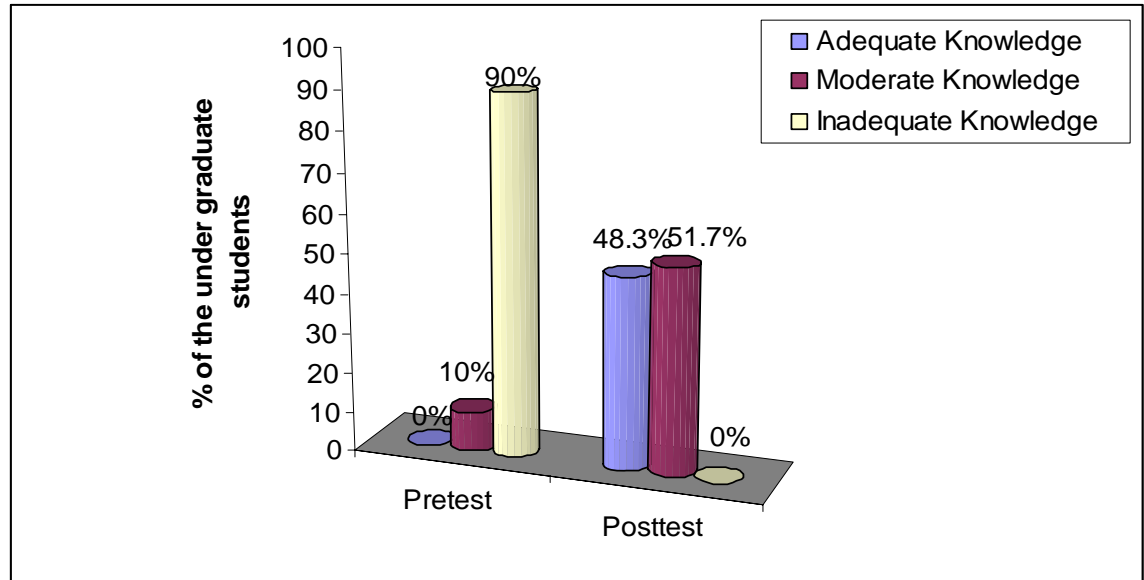


Figure 4.1 Distribution of subject's level of Knowledge before and after Computer Assisted Instruction.

Figure 4.1 showed that among the 60 subject's, majority of the subjects 54(90)% of the subjects had inadequate knowledge, 6(10)%of the subjects had moderate knowledge, before Computer Assisted Instruction.

Majority of the subjects 31(51.7)% had moderate knowledge, 29(48.3)% subjects had adequate knowledge after Computer Assisted Instruction.

SECTION – C

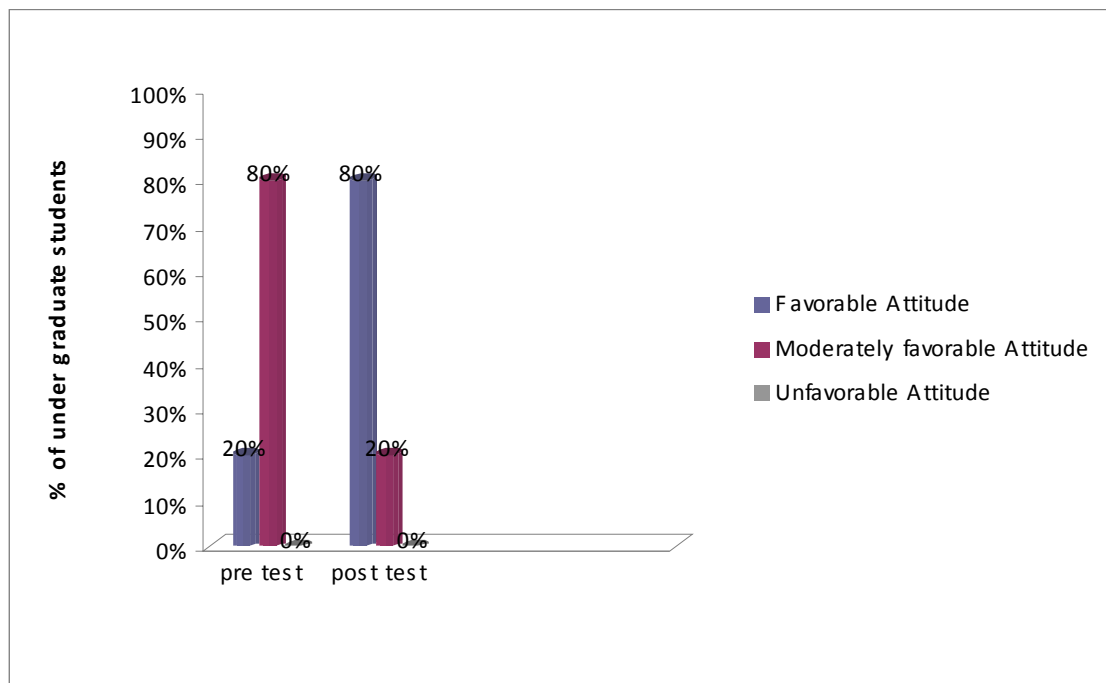


Figure 4.2: Distribution of subjects level of Attitude before and after Computer Assisted Instruction

Figure 4.2: showed that among 60 subjects, majority of the subjects 48(80)% had moderate attitude and 12(20)% subjects had adequate attitude before Computer Assisted Instruction whereas.

Majority of the subjects 12(20)% had moderate attitude, 48(80)% subjects had adequate attitude after Computer Assisted Instruction.

SECTION - D

Table 4.2 : Effectiveness of Computer Assisted Instruction on knowledge and attitude.

(n =60)

S.NO	VARIABLES	MAXIMUM SCORE	PRE TEST		POST TEST		(t)VALUE
			MEAN	S.D	MEAN	S.D	
1	Knowledge	20	7.5	2.06	14.4	3.47	14.02*
2	Attitude	75	49.2	7.22	62.3	7.29	14.42*

*(P<0.01)

Table 4.2 There was a significant difference found ($p < 0.05$) on knowledge and attitude. The mean pretest score of knowledge was 7.5, (± 2.06) and post test score was 14.4, (± 3.47). The mean pre test score of attitude was 49.2 (± 7.22) and posttest score was 62.3 (± 7.29).

SECTION – E

**Table 4.3 : Correlation between posttest level of knowledge and attitude
among Undergraduate students.**

(n=60)

	KNOWLEDGE		ATTITUDE		'r' VALUE
	MEAN	S.D	MEAN	S.D	
Sample 60	14.4	3.47	62.3	7.29	0.97

Table 4.3 There was a positive correlation found between the posttest level of knowledge and attitude ($r=0.97$).

SECTION – F

Table 4.4 : Association between posttest level of knowledge and the demographic variables.

(n=60)

S. No	Demographic variables	Level of knowledge				χ^2 Value
		Moderate		Adequate		
		f	%	f	%	
1	Age (in years)					2.48
	A. 18years	18	30%	20	33.3%	
	B. 19years	8	13.3%	7	11.6%	
	C. 20years	4	16.6%	-	-	
	D. 21years	2	3.3%	1	1.6%	
2	Religion					6.43
	A. Hindu	17	28.3%	18	30%	
	B. Christian	8	13.3%	11	18.3%	
	C. Muslim	6	10%	-	-	
3	Age at Menarche					14.58*
	A. Below10years	-	-	-	-	
	B. 11-12years	6	10%	7	11.6%	
	C. 13-14years	18	30%	15	25%	
	D, 15-16years	7	11.6%	7	11.6%	
4	Menstrual Cycle					0.58
	A. Regular	27	45%	25	41.6%	
	B. Irregular	3	5%	5	8.3%	

5	Area of Residence					
	A. Urban	15	25%	12	20%	0.28
	B. Rural	16	26.6%	17	28.3%	
6	Type of Family					
	A. Nuclear	26	43.3%	21	35%	18.35*
	B. Joint	6	10%	3	5%	
	C. Extended	1	1.6%	3	5%	
7	Food Habits					
	A. Vegetarian	22	36.6%	20	33.3%	0.12
	B. Non-vegetarian	9	15%	9	15%	
8	Previous source of knowledge gained related breast self examination through,					
	A. Mass media	18	30%	12	20%	19.14*
	B. Health educator	5	8.3%	7	11.6%	
	C. Friends	4	6.6%	5	8.3%	
	D, Family members	4	6.6%	5	8.3%	

*** (p<0.05)**

Table 4.4 showed the association between knowledge of students and demographic variables. There was a significant association between knowledge and age at menarche, type of family, previous source of knowledge gained related Breast Self Examination through.

SECTION – G

Table 4.5 : Association between posttest level of attitude with the selected with the selected demographic variables.

(n=60)

S. No	Demographic variables	Level of Attitude				χ^2 Value
		Moderate		Adequate		
		f	%	f	%	
1	Age (in years)					1.73
	A. 18years	13	21.6%	25	41.6%	
	B. 19year	4	6.6%	11	18.3%	
	C. 20years	1	1.6%	3	5%	
	D. 21years	-	-	3	5%	
2	Religion					15.1*
	A. Hindu	8	13.3%	27	45%	
	B. Christian	4	6.6%	15	25%	
	C. Muslim	1	1.6%	5	8.3%	
3	Age at Menarche					9.05
	A. Below10years	-	-	-	-	
	B. 11-12years	3	5%	10	16.6%	
	C. 13-14years	13	21.6%	20	33.3%	
	D. 15-16years	2	3.3%	12	20%	
4	Menstrual Cycle					8.04*
	A, Regular	15	25%	37	61.6%	
	B, Irregular	2	3.3%	6	10%	

5	Area of Residence					
	A. Urban	7	11.6%	26	43.3%	23.77*
	B. Rural	6	10%	21	35%	
6	Type of Family					
	A. Nuclear	10	16.6%	37	61.6%	11.67*
	B. Joint	1	1.6%	8	13.3%	
	C. Extended	1	1.6%	3	5%	
7	Food habits					
	A. Vegetarian	10	16.6%	32	53.3%	2.8
	B. Non-vegetarian	1	1.6%	17	28.3%	
8	Previous source of knowledge gained related Breast Self Examination through,					
	A. Mass media	3	5%	27	45%	
	B. Health educator	2	3.3%	10	16.6%	6.33
	C. Friends	3	5%	6	10%	
	D. Family members	4	6.6%	5	8.3%	

*(p<0.05)

Table 4.5 showed the association between attitude of students and demographic variables. There was a significant association between attitude and religion, menstrual cycle, area of residence, type of family.

CHAPTER – V

DISCUSSION

The present study was conducted among Undergraduate students in Women's Christian College Nagercoil, at Kanyakumari District. Pre-experimental one group pre test post test design was used for this study. Permission was obtained from the principal of Women's Christian College. Data collection was done over the period of 4 weeks. Oral consent was obtained from the subjects. The investigator had selected 60 Undergraduate students by using non-probability convenience sampling technique. Pretest was done on day Ist to assess the level of knowledge through structure knowledge questionnaire and attitude was assessed by using 5 point likert scale. Then Computer Assisted Instruction administered to the subjects regarding Breast Self Examination for 30 mins on the same day. Then the posttest level of knowledge and attitude was assessed after 15 days.

Computer Assisted Instruction was assessed by paired 't' test. Co-relation coefficient was used to find out the relationship between the post test knowledge and attitude of Undergraduate students.

Chi-square analysis was used to find the association between the post test knowledge and attitude of the subjects with selected demographic variables such as age, Religion, age at menarche, menstrual cycle, area of residence, type of family, food habits, previous source of knowledge gained related Breast Self Examination through.

First objective: To assess the level of Knowledge regarding Breast Self Examination among Under graduate students before and after Computer Assisted Instruction.

Figure 4.1 showed that among the 60 subject's, majority of the subjects 54(90)% of the subjects had inadequate knowledge, 6(10)%of the subjects had moderate knowledge, before Computer Assisted Instruction.

Majority of the subjects 31(51.7)% had moderate knowledge, 29(48.3)% subjects had adequate knowledge after Computer Assisted Instruction. Hence these findings support the H₁ hypothesis.

Second objective: To assess the level of Attitude regarding Breast Self Examination among Undergraduate Students before and after Computer Assisted Instruction.

Figure 4.2: showed that among 60 subjects, majority of the subjects 48(80)% had moderate attitude and 12(20)% subjects had adequate attitude before Computer Assisted Instruction whereas.

Majority of the subjects 12(20)% had moderate attitude,48(80)% subjects had adequate attitude after Computer Assisted Instruction. Hence these findings support the H₁ hypothesis.

Third and Fourth objectives: To evaluate the effectiveness of Computer Assisted Instruction on Knowledge and attitude regarding Breast Self Examination among Undergraduate students.

Table 4.2 There was a significant difference found ($p < 0.05$) on knowledge and attitude. The mean pretest score of knowledge was 7.5 (± 2.06) and posttest score was 14.4, (± 3.47). The mean pretest score of attitude was 49.2 (± 7.22) and posttest score was 62.3 (± 7.29). Hence these findings support the H₂ hypothesis.

Fifth objective: To correlate the posttest level of Knowledge and Attitude of Computer Assisted Instruction regarding Breast Self Examination among Under graduate students.

Table 4.3 There was a positive correlation found between the post test level of knowledge and attitude ($r=0.97$). Hence these findings support the H_3 hypothesis

Sixth objective: To associate the posttest level of knowledge regarding Breast Self Examination with their selected demographic variables.

Table 4.3 showed the association between knowledge of students and demographic variables. There was a significant association between knowledge and age at menarche, type of family, previous source of knowledge gained related Breast Self Examination through. Hence these findings support the H_4 hypothesis

Seventh objective: To associate the posttest level of attitude regarding Breast Self Examination with their selected demographic variables

Table 4.4 showed the association between attitude of students and demographic variables. There was a significant association between attitude and religion, menstrual cycle, area of residence, type of family. Hence these findings support the H_5 hypothesis.

SSSS

CHAPTER - VI

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

This chapter deals with summary of the study findings and its implications for nursing and health care services. It clarifies the implications and recommendations given for different areas like nursing education, nursing practice, administration for health care delivery system and nursing research.

Summary of the Study

This study was undertaken to evaluate the effectiveness of Computer Assisted Instruction of knowledge and attitude regarding Breast Self Examination among Undergraduate students at Kanyakumari District.

The effects of Computer Assisted Instruction was assessed by paired 't' test. Co-relation co-efficient was used to find out the relationship between the post test knowledge and attitude of Undergraduate students. Chi-square analysis was used to find the association between the post test knowledge and attitude of the subjects with selected demographic variables.

Major findings of the study

- ▶ Level of knowledge showed that majority of the subjects 54(90)% of the subjects had inadequate knowledge, 6(10)% of the subjects had moderate knowledge, before Computer Assisted Instruction.

- ▶ Level of knowledge showed that majority of the subjects 31(51.7)% had moderate knowledge, 29(48.3)% subjects had adequate knowledge after Computer Assisted Instruction.
- ▶ Level of attitude showed that majority of the subjects 48(80)% had moderate attitude and 12(20)% subjects had adequate attitude before Computer Assisted Instruction.
- ▶ Level of attitude showed that majority of the subjects 12(20)% had moderate attitude, 48(80)% subjects had adequate attitude after Computer Assisted Instruction.
- ▶ The study revealed that there was a significant difference found ($p < 0.05$) on knowledge and attitude. The mean pretest score of knowledge was 7.5, (± 2.06) and posttest score was 14.4, (± 3.47). The mean pretest score of attitude was 49.2, (± 7.22) and posttest score was 62.3, (± 7.29).
- ▶ There was a positive correlation found between the posttest level of knowledge and attitude ($r = 0.97$).
- ▶ The association between knowledge of students and demographic variables. There was a significant association between knowledge and age at menarche, type of family, previous source of knowledge gained related Breast Self Examination through.
- ▶ The association between attitude of students and demographic variables. There was a significant association between attitude and religion, menstrual cycle, area of residence, type of family.

CONCLUSION

Based on the findings of the study following conclusions were drawn.

1. Knowledge and attitude regarding Breast Self Examination level of the Undergraduate students is high and it needs an intervention.
2. Computer Assisted Instruction significantly increases knowledge and attitude regarding Breast Self Examination among Undergraduate students.
3. The study revealed that there was a significant relationship between knowledge and attitude, when knowledge increases attitude also increased. It indicates positive correlation between knowledge and attitude.
4. The study revealed that there was a significant association between knowledge and attitude after Computer Assisted Instruction with selected demographic variables such as Age at menarche, Type of family, previous source of knowledge gained related Breast Self Examination through, religion, menstrual cycle, Area of residence, type of family.

NURSING IMPLICATIONS

The findings of study have several implications in the following fields. Like (Nursing practice, Nursing education, and Nursing administration)

Nursing Practice

- Nurses play an important role in promoting health and well being of the students with early detection of breast cancer.
- Nurses should help the students in identifying the abnormalities in the breast.
- Nurses can intervene Breast Self Examination to alter physical discomfort and psychological disequilibrium.

- ▶ Nurses can teach family members about Breast Self Examination in order to avoid breast cancer and improve the under graduate students quality of life.

Nursing Education

- ▶ Nurse educators can effectively teach the uses and significance of Breast Self Examination and it helps nursing students to gain knowledge regarding Breast Self Examination, and it helps for the early detection of breast cancer.
- ▶ Nursing students can understand that Computer Assisted Instruction can help the undergraduate students to do Breast Self Examination of their breast regularly.

Nursing Administration

- ▶ The nurse administrator should arrange for education programme to nursing students regarding the importance of Breast Self Examination to increase knowledge and attitude.
- ▶ Nursing administrators should emphasize and encourage the nurses to contribute to the evolution of breast cancer and services.
- ▶ Nurse administrator can prepare the skilled nurses who can spend time with people in solving breast cancer problem.
- ▶ Nurse administrator should be arranged for regular Continuous Nursing Education programme for nurses regarding Breast Self Examination.

RECOMMENDATIONS

Recommendations for further research include :

- ▶ A similar study can be replicated with larger sample size and in various other settings for better generalization.

- ▶ A similar study can be conducted to compare the effects of Computer Assisted Instruction and Structure Teaching Programme regarding Breast Self Examination.
- ▶ A study can be conducted among community peoples to prevent breast cancer.
- ▶ A similar can be done study for longer duration

BIBLIOGRAPHY

1. Best Bauman John,W, Kohn James.V, (1999). *Research and education*. (7th edition). New Delhi. Prentice Hall of India.
2. Brunner and suddarth's, (2008) *Text book of medical surgical nursing*. (9th edition). Published by Lippincott.
3. Emily Slone MC Kinney, Susan Rowen James and Sheran Smith Murray, (2005). *Maternal Child Health Nursing*. (2nd edition). Mosphy Publications.
4. Gupta.S.P, (2008) *Statistical methods*.(37th edition). New Delhi. Sultan Chand and Soris Education Publishers.
5. Gurumani.N. (2004). *An Introduction To Biostatics*. (2nd edition). Chennai. MJP Publishers.
6. Kozier Erb, Blais, Wilkinson's, (2002). *Fundamentals of Nursing Concepts Process and Practice*.(5th edition). Philadelphia: Jaypee Brothers. Lippincott, Company.
7. Lewis Heitkemper Dirksen. (2004). *Medical Surgical Nursing*. (6th edition) Londen. Mospy publication.
8. Polit. D.F, Hunger, B.P.(2008). *Nursing Research Principles and Methods* (8th edition), Philadelphia, J.B Lippincott Company.
9. Potter and Perry, (2008). *Fundamentals of Nursing, Concept Process And Practice*, (14th edition), London, Mospy Year Book.
10. Sunder Rao. P.S.S, Richard.J. (2002). *An Introduction to Biostatistics*. (5th edition). New Delhi. Practice Hall of India Private Limited.

Journals

- ❖ Adams, C. K. Hall, D. C., Jagruti D., Prajapati, T. M., Akande, et al (1976). *Lump detection in simulated human breasts*. Perception and Psychophysics, 20, 163-176.
- ❖ Artmann, A., Businge, K., Kawooya, G., Micheal, P., Newcomb, et al (2006, June 20 Suppl.). *Breast Self-Examination training and counseling's motivation strategies for breast awareness and participation in breast cancer screening programs* (ASCO Annual Meeting Proceedings, Part 1). Journal of Clinical Oncology, 24(188), 1027.
- ❖ Atkins, E., Solomon, L. J., Worden, J. K., & Foster, R. (1991). *Relative effectiveness of methods of breast self-examination*. Preventive Medicine, 14(4), 357-367.
- ❖ Coleman, E. A., & Pennypacker, H. S. (1991). *Measuring breast self examination proficiency*. Cancer Nursing, 14(4), 211-217.
- ❖ Duer, J. D. (1984). *Group dissemination of group breast self examination training technology*. Patient Education Counseling, 7(6), 98-116.
- ❖ Fletcher, S. W., O'Malley, (1990). *How best to teach women breast self-examination*. Annals of Internal Medicine, 112(10), 772-779.
- ❖ Foster, R. S., Kiguli-Malwadde, Elsie, Mubuuke, Francis., et al, (1978). *Breast self examination practices and breast cancer stage*. New England Journal of Medicine, 299, 265-270. Huguley, C. M., & Brown, R. L.
- ❖ Hall, D. C., (1977). *Progress in manual breast examination*. Cancer, 40, 364-370.
- ❖ Jacob T. C., Dunder, (1994). *A comparison of breast self-examination and clinical examination*. Journal of the National Medical Association, 86(1), 40-45.
- ❖ Leight, S. B., Chilingchen, Noel, S. Weiss, P. Newcomb, et al; (2000). *The effect of structured training on breast self-examination search behaviors as measured using biomedical instrumentation*. Nursing Research, 49(5), 283-289.

- ❖ Olson, James Stuart (2002). *Bathsheba's Breast: Women, Cancer and History*.
Baltimore: The Johns Hopkins University Press. PP: 198.
- ❖ Pennypacker, H. S. (1991). *Perspective on manual breast examination* Administrative
Radiology Journal, 10(7), 33-36.
- ❖ Phipps, Manogan, Sands and Marek. (2003). *Medical Surgical Nursing*, health and
illness perspectives, 7th edition Sally Schrefer publisher, Philadelphia PP:1795.
- ❖ Pinto, B. M. (1993). *Training and maintenance of breast self examination skills*.
American Journal of Preventive Medicine, 9(6), 353-358.
- ❖ Saunders, K. J., Tracey MC, Cready, Jenkinson RGN, A.Bassili, et al, (1986).
Improved proficiency of search in breast self examination. Cancer, 58, 2531-
2537.
- ❖ Somkin, C.P. (1993). *Improving the effectiveness of breast self examination in the
early detection of breast cancer*. Nurse Practitioner Forum, 4(2), 76-84.
- ❖ Stratton, B. F., (1994). *Breast self-examination proficiency: Attitudinal, demographic
and behavioral characteristics*. Journal of Women's Health, 3(3), 185-195.
- ❖ Thomas, R.G., et al. (1981). *Computer aided instruction of breast self examination*.
Annals of the World Association for Medical Informatics, 1, 19-22.
- ❖ Worden, J. K, Jclin Nurs, A, Saki, E.I. Shazly, et al, (1990). *A community-wide program
in breast self examination training and maintenance*. Preventive Medicine, 19(3),
254-269.

NET REFERENCES

1. Thomas ,D.B;et al, “Randamized trail of self breast exam in Shangar; methodology and preliminary Results” Retrieved from <http://www.encyclopediaofpublichealth.com>.
2. James Stuart “Bathsheba's Breast: Women, Cancer and History”.Retrieved from <http://www.breastpumpdeals.com>.
3. O'Malley, (1990). “ How best to teach women breast self-examination”.Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed>.
4. Pennypacker, H. S. (1991). “ Measuring breast self examination proficiency”. Retrieved from <http://www.leron-line.com>.
5. Foster, R. (1991). “ Relative effectiveness of methods of breast self examination.” Rrtrieved from <http://www.imaginis.com>

ANNEXURE – A



SARA NURSING COLLEGE

(Recognised by Govt. of Tamil Nadu, Affiliated to
T.N. Dr. M.G.R. Medical University & Approved by Indian Nursing Council)

Palani Main Road, Manakadavu,
Dharapuram - 638 673, Tirupur District,
Tamil Nadu, South India.

Phone : 04258-244208, Fax : 04258-244254
E-mail : saranursingcollege@gmail.com
website : www.saranursingcollege.com

From,
The Principal,
Sara Nursing College,
Dharapuram.

Date :
Lr.No.SNC.86A/06/11

To
The Pricipal,
Women's Christian College,
Nagercoil,
Kanyakumari (Dt).

Respected Madam / Sir,

Ms. N. Jasmine Victoria is a bonafied student of Sara Nursing College, Dharapuram doing her M.Sc (N) programme in Nursing. She is conducting a research on,

“A study to evaluate the effectiveness of Computer Assisted Instruction on knowledge and attitude regarding Breast Self Examination among Undergraduate at selected college in Kanyakumari District. The research project is to be submitted to “The Tamilnadu Dr. M.G.R Medical University”. As a partial fulfillment of the university requirements for the award of M.Sc (N) degree. The researcher is anticipating that this project will be beneficial in early detections of Breast cancer among students at your esteemed institution”.

As part of the study she needs to observe the selected subjects in term of breast self examination and its relation to early detection and prevention of breast cancer and document the collected data for analysis and report.

Hence I request your kind consent for her to conduct the study from 20th June to 4th August at your esteemed Institution. Further details of the proposed project outcome will be furnished by the researcher in person. The college norms, policies and ethics will be respected and strictly adhered by the researcher throughout the study period.

Thanking You



permitted
Principal
PRINCIPAL
Sara Nursing College,
Dharapuram - 638 673.



**WOMEN'S CHRISTIAN COLLEGE
NAGERCOIL**

Dr. J. SINTHIKAYAL, M.A., M.Phil., Ph.D.
Principal

Off. : 231461
Res. : 04651-272020
Cell No. 9442366334
Fax : 228834
POST BOX No. 70
NAGERCOIL - 629 001
Kanyakumari District

This is certifying that the project reported entitled,

“A study to evaluate the effectiveness of computer assisted instruction of knowledge and attitude regarding Breast self examination” among under graduate students at selected college in Kanyakumari Dist (2010-2012) is a Bonafide record of work done by Miss.N.Jasmine Victoria. Final year M.Sc nursing student of Sara Nursing College, Dharapuram-638673 for four weeks from 29.06.2011 to 28.07.2011 in our college under guidance of Principal of Women's Christian College, Nagercoil in partial fulfillment of her post graduate curriculum.

27/07/2011




Signature of Principal
WOMEN'S CHRISTIAN COLLEGE
NAGERCOIL

ANNEXURE – B

TOOL

SECTION – A

Demographic data

Part A

1. Age (in years)

a, 18 years

b, 19 years

c, 20 years

d, 21 years

2. Religion

a, Christian

b, Hindu

c, Muslim

3. Age at Menarche

a, >10

b, 11-12

c, 13-14

d, 15-16

4. Menstrual cycle

a, Regular

b, Irregular

5. Area of residence

a, Urban

b, Rural

6. Type of family

a, Nuclear family

b, Joint family

c, Extended family

7. Food habits

a, Vegetarian

b, Non-vegetarian

7. Previous source of knowledge gained related Breast Self Examination through,

a, Mass media

b, Health educator's

c, Friends

d, Family members

SECTION – B

PART - B

Knowledge about Breast Self Examination

1. What do you mean by breast self examination?
 - a ,Inspection of breast
 - b ,palpation of breast
 - c ,Inspection and palpation of breast
 - d ,Inspection and palpation of breast by herself

2. What is the importance of performing a Breast Self Examination?
 - a, Early detection of breast abnormalities
 - b, To improve blood circulation to the breast
 - c, To stimulate the secretion of breast milk
 - d, To prevent infection

3. Why should students learn to do Breast Self Examination?
 - a, It is beneficial than mammography
 - b, It detects palpable breast lumps easily
 - c, It saves money
 - d, For cosmetic purpose

4. Which is the aggressive period for developing breast cancer?
 - a, 30-35years
 - b, 35-40years
 - c, 40-45years
 - d, 45-50years

5. Who is having more chance to get breast cancer?
- a, Children
 - b, Adults
 - c, Post menopausal women
 - d, The nulli parous women
6. How often do you perform breast self examination?
- a, Once in 3 months
 - b, Once in a months
 - c, Once in a week
 - d, Once in 6 months
7. Which is the best time for performing breast self examination?
- a. During menstruation
 - b, 5-7days before menstruation
 - c, 5-7days after menstruation
 - d, Last day of menstruation
8. Which place is ideal for performing a breast self examination?
- a, Dim lighted room
 - b, Well ventilated room
 - c, Well lighted room
 - d, Highly reflective room

9. How long do you need perform a breast self examination?

- a, 10mins
- b, 20mins
- c, 30mins
- d, 40mins

10. Which part of the hand is used to palpate breast?

- a, The palm as a whole
- b, The pads of three middle fingers
- c, The tips of three middle fingers
- d, The pad of the index finger

11. Which is the direction to start breast self examination?

- a. Around the areola
- b. Around the nipple
- c. Axilla to nipple
- d. Nipple to axilla

12. How will you move your fingers during breast self examination?

- a ,Circular
- b ,Vertical
- c ,Horizontal
- d ,Flat

13. Which is the most appropriate position adopted for breast self examination?
- a. Standing and sitting position
 - b. Flower's position
 - c. Prone position
 - d. Left-lateral position
14. Which is the ideal age to start a practice of breast self examination?
- a. From 30years
 - b. From 20years
 - c. From 40years
 - d. From 12years
15. What are the normal findings do you get after doing a breast self examination?
- a. No discharge from the nipples and no tenderness of breast
 - b. Tenderness of breast
 - c. Yellow discharge from the nipples
 - d. Bloody discharge from the nipples.
16. Which is the best way to place the folded towel or pillow while doing a breast self examination in lying down position?
- a. Under the head
 - b. Under the elbow
 - c. Under the shoulder
 - d. Under the neck

17. How will you position right hand, while palpating right breast?

- a ,Arm out with elbow at 45⁰ angle
- b ,Over the head
- c ,Arm out elbow at 90⁰ angle
- d ,Over the abdomen

18. While performing palpation of breast, which of the following pattern to be followed for during breast self examination?

- a ,vertical pattern starting from arm pit
- b ,A horizontal pattern starting from arm pit
- c ,A horizontal pattern starting from the under aspect of breast
- d ,A circular pattern starting from the nipple out ward

19. Which is the top most priority in the detection of abnormal findings?

- a, Lump or mass
- b, Discharge from the nipples
- c, Shape disorder
- d, Retracted and inverted nipples

20. What is the immediate action to be done while an abnormal is found in the breast during breast self examination?

- a, Wait for a month for observation
- b, Consult a physician immediately
- c, Discuss with peer group
- d, Keep it secret

SCORING KEY FOR STRUCTURED KNOWLEDGE QUESTIONNAIRE

The item number 1 – 20 was considered as the aspect of knowledge score. For every correct answer a score of 1 awarded and for every wrong answer a score zero awarded.

ITEM	OPTIONS			
	A	B	C	D
1	0	0	0	1
2	1	0	0	0
3	0	1	0	0
4	0	1	0	0
5	0	0	1	0
6	0	1	0	0
7	0	0	1	0
8	0	0	1	0
9	0	1	0	0
10	0	1	0	0
11	0	0	1	0
12	1	0	0	0
13	1	0	0	0
14	0	1	0	0
15	1	0	0	0
16	0	0	1	0

ITEM	OPTIONS			
	A	B	C	D
17	0	1	0	0
18	0	0	0	1
19	1	0	0	0
20	0	1	0	0

SECTION – C

PART C

5 POINT SCALE TO ASSESS THE ATTITUDE REGARDING BREAST SELF EXAMINATION

S.NO	STATEMENT	STRONGLY AGREE	AGREE	UNCERTAIN	DIS AGREE	STRONGLY DISAGREE
1.	Every women must know about breast self examination					
2.	Breast Self Examination in an effective method for early detection of breast cancer					
3.	Breast Self Examination is a painful procedure					
4.	Breast Self Examination is a simple procedure which can be performed easily					

5.	Breast Self Examination is difficult to learn					
6.	Breast Self Examination can be as a substitute for regular clinical breast examination					
7.	Breast Self Examination is a time consuming procedure					
8.	Breast Self Examination enhances self confidence about breast health					
9.	Breast Self Examination can be done only by health professionals					
10.	I feel shy perform Breast Self Examination					

11.	If I do Breast Self Examination others will comment on it					
12.	I hesitate to touch my breasts					
13.	Training is needed to learn Breast Self Examination					
14.	Breast lumps or changes are found by self through Breast Self Examination					
15.	I am fearful whether I will detect any abnormality if I do Breast Self Examination.					

Scoring key for attitude : It consist of 7 positive and 8 negative statements. The total score was 75.

Positive Statement	Score	Negative Statement	Score
Strongly Agree	5	Strongly agree	1
Agree	4	Agree	2
Uncertain	3	Uncertain	3
Disagree	2	Disagree	4
Strongly disagree	1	Strongly Disagree	5

ÀÊ¼Ç-«

§,ð,ôÀîõ §,ûÀÇ,Ûîî °;ÇÂ;É ÀÇ"¼"Âî|°;øÄ×õ

ÒûÇÇ ÀÇÃÃõ: À;¼Ç;Ç ±ñ:

1. ¬î,û ÅÂÐ ±ÝÉ?

«. 18ÅÂÐ

¬. 19ÅÂÐ

þ. 20 ÅÂÐ

®. 21ÅÂÐ

2. Ä¼õ

«. ,ÇÈÇŠ¼Ãõ

¬. þóÐ

þ. þŠÄ;õ

3. âôÀ"¼ó¼ ÅÂÐ

«.

¬.

þ.

®.

4. Á;¼ÃÇ¼;ö ÍÆü°Ç

«. Ó"ÈÂ; ,

¬. Ó"ÈÂ; , þø"Ä

5. Å°ÇôÀÇ¼õ

«. ç,Ãõ

¬. ,ÇÃ;Ãõ

6. $\hat{i}\hat{i}\tilde{o}\hat{A}\hat{A}''$,

«. $\frac{3}{4}\acute{E}\grave{c}\grave{i}\hat{i}\hat{i}\tilde{o}\hat{A}\tilde{o}$

\neg . $\ddot{U}\tilde{o}\hat{i}\hat{i}\hat{i}\hat{i}\tilde{o}\hat{A}\tilde{o}$

p. $|\hat{A}_i\grave{c}\hat{A}\hat{i}\hat{i}\hat{i}\tilde{o}\hat{A}\tilde{o}$

7. $\neg\frac{1}{2}\times\tilde{o}\hat{A}\acute{A}\grave{i},\tilde{o}$

«. $,i\tilde{o},\acute{E}\grave{c}\hat{A}'' ,,\hat{u}$

\neg .p" $\grave{E}\hat{i}^\circ\grave{c}\hat{A}'' ,,\hat{u}$

p. $\hat{A}_i\tilde{A}\tilde{o}\frac{3}{4}\grave{c}\ddot{u}\hat{i}\pm\tilde{o}\frac{3}{4}''\acute{E}\acute{O}''\grave{E}[p''\grave{E}\hat{i}^\circ\grave{c}\hat{A}'' ,,\hat{u}]$

8. $\acute{I}\hat{A}\hat{A}_i\div\hat{A},\hat{A}_i\grave{c}\acute{s}^\circ i\frac{3}{4}''\acute{E}\hat{A}\ddot{u}\grave{E}\grave{c}p\frac{3}{4}\ddot{u}\hat{i}\acute{O}\acute{y}\acute{E}_i\emptyset\ll\grave{E}\grave{c}\acute{o}\frac{3}{4}\grave{c}\tilde{O}\hat{i},\grave{c}\grave{E}\acute{\epsilon}\div,\grave{C}_i?$

«. $\frac{3}{4},\hat{A}\emptyset|\frac{3}{4}i\frac{1}{4}\div\tilde{O}$

\neg . $\grave{c}\hat{A}\hat{i},\emptyset\hat{A}\grave{c}\neg\ddot{u}\acute{U}\hat{A}\hat{A}\div$

p. $\grave{c}\hat{n}\hat{A}\div,\hat{u}$

®. $\hat{i}\hat{i}\tilde{o}\hat{A}\tilde{o}\frac{3}{4}\grave{c}\acute{E}\div$

ÍÂÁ_{í÷À}, À_{íç§°í¼}"É ÀÛÈçÂ «Èç×ð¼çÈý §,ûÀç,û

1. ÍÂÁ_{í÷À}, À_{íç§°í¼}"É ±ýÈ_{íø} ±ýÉ?

«. Á_{í÷À},ð"¼ô À_{í÷ðð} ¬½÷óð |,íûÛ¼ø

¬. Á_{í÷À},ð"¼ì ",,ç_{íø} |¼_{íðî} À_{í÷ð¼ø}

þ. Á_{í÷À},ð"¼ô À_{í÷ðð}, ",,ç_{íø} |¼_{íðî} ¬½÷óð |,íûÛ¼ø

®. Á_{í÷À},ð"¼ô À_{í÷ðð}, ",,ç_{íø} |¼_{íðî} «Á÷,§ç ¬½÷óð

|,íûÛ¼ø

2. ÍÂÁ_{í÷À}, À_{íç§°í¼}"É |°öÁ¼çý Óì,çÂðÃö ±ýÉ?

«. Á_{í÷À},ð¼çý «°í¼_{íÃ½} çç"Ã"Â ¬ÃöÀð¼çø ,ñ¼Èç¼ø

¬. Á_{í÷À},ð¼çý þÃð¼ µð¼ð"¼ «¼ç,íçð¼ø

þ. ¼_{íöðÀ_{íø}} ÍÃöÀ"¼ð ãñîÃ¼ûì

®. ,çÕÁçð|¼_{íüú} Ã_íÁø ¼îì,

3. Á,çç÷ ²ý ÍÂÁ_{í÷À}, À_{íç§°í¼}"É"Â §Áü|,íûç ,üûì|,íûç §Ãñîö?

«. |Á|Á_í,çÃ_íÃç"Â Áç¼ °çÈó¼ Ó"È

¬. Á_{í÷À},ð¼çø ²üÀîö Á_{íüÈí}, "ç ¬ÃöÀ çç"ÃÃçø ,ñ¼Èç¼ø

þ. À½ð"¼ Áçî°ðÀîð¼ ÓÊÔö

®. «Æ", §ÃöÀîððÃ¼ûì

4. ±ó¼ ÅÃ¼çø Á_{í÷À}, ÒüÚ§çíö «¼ç,Á_í, ÅÃ Á_{íöððûçð}?

«. 30 Ó¼ø 35 Å"Ã

¬. 35 Ó¼ø 40 Å"Ã

þ. 40 Ó¼ø 45 Å"Ã

®. 45 Ó¼ø 50 Å"Ã

®. 40 ¿çÁç¼í,û

10. À¡ç§°¡¼"É |°öÔö |À¡ØÐ ",,Ççý ±ó¼ Àî¼ç"Â -À§Â¡,çì, §Åñîö?

«. ",Âçý -öÀî¼ç

¬. ãýÚ ÅçÃÃçý -öÀî¼ç

þ. ãýÚ ÅçÃÃçý ÑÉç

®. ¬û,¡öÊ ÅçÃÃçý -öÀî¼ç

11. ÍÂÁ¡÷À, À¡ç§°¡ö"É"Â ±í,çÕóÐ |¼¡¼í, §Åñîö?

«. Á¡÷À,ì,¡ö"À ÍüÈçÔûÇ Àî¼ç

¬. Á¡÷À,ì,¡öÔÔ Àî¼ç

þ. «ìîû Ó¼Ø Á¡÷À,ì,¡öÔ Å"Ã

®. Á¡÷À,ì,¡öÔ Ó¼Ø «ìîû Å"Ã

12. ÍÂÁ¡÷À, À¡ç§°¡¼"ÉÂçý §À¡Ð ÅçÃØ,"Ç ±ó¼ ¿ç"ÃÂçØ ¿,÷ò¼ §Åñîö?

«. ÍÆü°ç ¿ç"Ã

¬. |°íîò¼¡É ¿ç"Ã

þ. ,ç"¼Ãö¼ ¿ç"Ã

®. ¼"ÃÃö¼ ¿ç"Ã.

13. ÍÂÁ¡÷À, À¡ç§°¡¼"É |°öÂ Óì,çÂÁ¡É °¡çÂ¡É ¿ç"Ã ±ýÉ?

«. ¿çýÈ ¿ç"Ã «öÄÐ «Ã÷ó¼ ¿ç"Ã

¬. À¡¼ç «Ã÷ó¼ ¿ç"Ã

þ. îôòÈôÀîò¼ ¿ç"Ã

®. þ¼ÐòÈÁ¡,¼çÕöÀçôÀîò¼ ¿ç"Ã

14. ±ó¼ ÂÂ¼çÄçÕóÐ ÍÂÁ¡÷À, À¡ç§°¡¼"É |°öÂò¼¡¼í, §Åñîö?

«. 30 ÂÂ¼çÄçÕóÐ

¬. 20 ÅÄ¼çÄçÕóÐ

p. 40 ÅÄ¼çÄçÕóÐ

®. 12 ÅÄ¼çÄçÕóÐ

15. ÍÄÁ;÷À, À;ç§°;¼"ÉìÌ ÀçÈÌ,|À;ÐÄ; , ñ¼ÈçÂ §ÄñÊÂÐ ±ÝÉ?

«. Á;÷À,ì,;õÒ,ÇçÄçÕóÐ ÅÄç pø"Ä

¬. Á;÷À,ò¼çø ÅÄç pø"Ä

p. Á;÷À,ì,;õÒ,ÇçÄçÕóÐ Äí°û ççÈ |Äçç§ÄüÈí,û

®. Á;÷À,ì,;õÒ,ÇçÄçÕóÐ pÄò¼õ ,°ç¼ø

16. ÍÄÁ;÷À, À;ç§°;¼"É ÄîðÐì|,;ñî |°öÔõ |À;ØÐ ±ó¼ p¼ð¼çø

¼"ÄÄ"½"Ä «øÄÐ ÄÊð¼ Ð½ç"Ä "ÅöÄ£÷,û?

«, ¼"ÄìÌ «ÊÄçø

¬. ", äðîìì «ÊÄçø

p. §¼;û Äð"¼ìÌ «ÊÄçø

®, øðÐìì «ÊÄçø

17. ÅÄÐ Ä;÷À,ð"¼ |¼;ðî Ä;ç§°;¼"É |°öÔõ |À;ØÐ ¬í,û ÅÄÐ ",

±ó¼ çç"ÄÄçø pÕì, §Äñîõ?

«. §¼;ûÄð"¼ ÄüÜõ äðî 45 Ê,ç;ç §,;½Ä; ,

¬. ¼"ÄìÌ §ÄÄ; ,

p. §¼;û Äð"¼ ÄüÜõ äðî 90 Ê,ç;ç §,;½Ä; ,

®. ÅÄçüÜô Äì¼çìÌ §ÄÄ; ,

18. ÍÄÁ;÷À, À;ç§°;¼"É"Ä |°öÔõ |À;ØÐ ,ÀçÝÄÕÄÊÄüÈçø ±ó¼

ó"È"Ä ",Ä;ÜÄ£÷,û?

«. «ììû Äì¼çÄçÕóÐ |¼;¼í,ç |°íð¼; ,

¬. «ììû Äì¼çÄçÕóÐ |¼;¼í,ç ,ç"¼ Äð¼Ä; ,

p. Á;÷À,ð¼çý «ÊôÄì¼çÄçÕóÐ |¼;¼í,ç ,ç"¼ Äð¼Ä; ,

®. «ììû ó¼ø Ä;÷À,ì,;õÒ Ä"ÄÄçÄçÕóÐ |¼;¼í,ç Åð¼ ÄÊÄÄ; ,

19. «°;¼;Ã½ ,ñîâçêôð,ççø áç, óì,çâá;éð ±ð?

«. Á;÷À,ì,ðê

¬. Á;÷À,ì,;õð,ççõóð ¼çÃâì,°ç×,û

þ. Á;÷À, «"Áôð Á;úôÀð¼ çç"Ã

®. Á;÷À,ì,;õð,û íóí,ç,ìæçóð |°;Ã |°;Ãôðð ¼ý"Áô¼ý
,;½ôÀî¼ø

20. íâá;÷À, À;ç§°;¼"é |°ö¼ô àçèì ²¼;âð Á;úôÀð¼ «èçììèç,û
|¼ýÀð¼;ø ¬¼éê ç¼âêì",â; , ±ýé |°öâé÷,û?

«. ´õ Á;¼õ â"Ã ,;ð¼çõóð,Á;ú¼ø,"ç ,âéçô§Àý

¬. Áõððâ"Ã ¬¼éêâ; , «îì§åý

þ. ±ý ââ¼çø ¬ûçå÷,çç¼õ ,äó¼;§ä;°çô§Àý

®. Ã,°çâá; , "âððì |,;û§åý.

ÀÏ¼ç-þ

ÍÂÁ_í÷À,ô À_íç\$°_í¼"É"Âô ÀüÈçÂ ÁÉôÀ_íý"Á"Â |¼_íçóĐì |, _íûÛõ
\$,ûÅç ,û

Ó.² - Óø"ÁÂ_í, ²üÛì|, _íûÛ¼ø

² - ²üÛì|, _íûÛ¼ø

¿ç - ¿çî°ÂÁçý"Á

². |, _í - ²üÛì|, _íûÇÅçø"Ä

Ó.². |, _í - Óø"ÁÂ_í, ²üÛì|, _íûÇÅçø"Ä

Å. ±ñ	,ÕðĐİ,û	Ó.²	²	¿Ç	². , i	Õ.² , i
1.	ÍÃÃ;÷Ã, Ã;Ç§°;¼"ÉÔ ÀÛÈÇ ±øÃ;ô Ãñ,Ûõ ¼;Çó¼ÇÕì, §ÃñÎõ					
2.	ÍÃÃ;÷Ã, Ã;Ç§°;¼"É ãÃÕ Á;÷Ã, §¿;"ÂÔ ÀÛÈÇ «¼Ý -ÃõÃ ,;Ãò¼Ç§Ã «ÈÇóÐ , iûÇÃ;õ					
3.	ÍÃÃ;÷Ã, Ã;Ç§°;¼"É °õÔõ §Ã;Ð ÅÃÇ ²üÃÎõ					
4.	ÍÃÃ;÷Ã, Ã;Ç§°;¼"É, °;¼;Ã½Ã;, °õÃì ÜÊÂ ±ÇÇÃÓ"È Ã;Ç§°;¼"É-Ìõ					
5.	ÍÃÃ;÷Ã, Ã;Ç§°;¼"É ,üÃÐ ÁÇ,×õ ,ÊÉõ					
6.	ÍÃÃ;÷Ã, Ã;Ç§°;¼"É"Ã ÁÕòÐÃ Á"ÉÃÇø °õÃ¼üÎ Ã¼ÇÃ; ,î °õÃÃ;õ					
7.	ÍÃÃ;÷Ã, Ã;Ç§°;¼"É °õÃ¼üÎ «¼Ç, §¿Ãõ					

	ŝ¼"ÄôÄîõ					
8.	ÍÄÄî÷Ä, Äîçŝ°;¼"É"Ä Äî÷Ä, ¿Äò"¼ô ÄüÈçÄ ¼ýÉõÄçì", "Ä ²üÄîòð, çÈð.					
9.	ÍÄÄî÷Ä, Äîçŝ°;¼"É"Ä ÄõòðÄ ð"È"Äî ŝ°÷ó¼Ä÷, û Äðîõ ¼îý °õÄ ÓÊÔõ.					
10.	þó¼ Äîçŝ°;¼"É"Ä °õÄ ±Éìì Üî°Äî, ¯ûçð					
11.	¿îý þðÄîçŝ°;¼"É"Ä °õ¼;ø ÄüÈÄ÷, û ŝ, Äç °õÄî÷, û.					
12.	±ý Äî÷Ä, í, "çò ¼;¼ ±Éìì ¼Äî, Äî, ¯ûûð.					
13.	ÍÄÄî÷Ä, Äîçŝ°;¼"É °õÄ ÄÄçü°ç «Ä°çÄõ.					
14.	Äî÷Ä, ð¼çø ²üÄîõ Äî;ÚÄîî, û ÄüÚõ Äî÷Ä, î, ðÊ, "ç ¿îÄî, ŝÄ «Èçóð , îûçÄîõ.					
15.	ÍÄÄî÷Ä, Äîçŝ°;¼"É °õÄ¼ý äÄõ ²ŝ¼Üõ Äî;ÚôÄð¼ «ÈçìÈç, û þõììŝÄî ±É ÄÄôÄî, çŝÈý.					

ANNEXURE – C

BREAST SELF EXAMINATION PROCEDURE

DEFINITION

Breast Self Examination is a act of performing Inspection and palpation of breast by herself.

PURPOSE OF BREAST SELF EXAMINATION

- Breast Self Examination helps to detect breast cancer lumps of smaller sizes and leads to early diagnosis of breast cancer.
- It helps any change should be brought to the medical attention.
- Breast Self Examination will help to give you peace of mind each month.
- Breast Self Examination is only one part of good breast health care.

STEPS OF BREAST SELF EXAMINATION

STEP:I

Stand before a mirror. Inspect both breasts for anything unusual. Such as leaking, redness, skin changes, any discharge from the nipples, puckering, dimpling.

The next two steps (2and3) are designed to emphasize any change in the shape or contour of your breasts. As you do them, you will feel your chest muscles tighten.

STEP:II

Watching closely in the mirror, clasp hands behind your head and swing elbows forward.

STEP:III

Next , press hands firmly on hips and bow slightly toward your mirror as you pull your shoulders and elbows forward.

STEP:IV

Raise your left arm. Use fingers of your right hand to explore your left breast firmly, carefully and thoroughly. Beginning at the outer edge, press the flat part of your fingers in small circles, moving the circles slowly around the breast. Gradually work toward the nipple. Be sure to cover the entire breast and arm pit including the arm pit it self. Feel for any unusual lump or mass under the skin.

STEP:V

Repeat step 4 lying down. Lie flat on your back, right arm over your head and a pillow or folded towel under your right shoulder. This position flattens the breast and makes it easier to examine. Use the same circular motion described earlier.

STEP:VI

Repeat the exam on your right breast.

THINGS TO BE KEEPING IN MIND

- Every month we have to do Breast Self Examination
- Every month you have to do in a proper way, if there is a abnormality consult your physician.

ÍÂÁ₁÷À,ô À₁ç§°₁¼"ÉÂçý | °öö"È

Å"ÃÂ"È

ÍÂÁ₁÷À,ô À₁ç§°₁¼"É ±ýÀÐ Á₁÷À,ô"¼ô À₁÷òÐ, ",,Ç₁ø
|¼₁ðÎ «Å÷,§Ç ⁻½÷óÐ |,;ûÛ¼ø ⁻Îð.

ÍÂÁ₁÷À,ô À₁ç§°₁¼"ÉÂçý ÂÂý,û

1. Á₁÷À,ô¼çø ⁻ûÇ °çÈçÂ ÁüÜö «°₁¼₁Ã½,ðÊ,"Ç ±Çç¼çø «ÈçÂ
⁻¼×,çÈÐ.
2. ´û|Å₁Ö Á₁¼Öö ÍÂÁ₁÷À,ô À₁ç§°₁¼"É | °öÅ¼çÉ₁ø Á₁÷À,ö
°öÀó¼Á₁É §₁ö þø"Ã ±ýÈ ÁÉ çç"È"Âô |ÀÈÄ₁ö.
3. Á₁÷À,ô ÂÃ₁Á₁çòÀçý ´Ö À₁¼çÂ₁, ÍÂÁ₁÷À,ô À₁ç§°₁¼"É
ÅçÇíÎ,çÈÐ.
4. «°₁¼₁Ã½Î,ðÊ,û |¼ýÀð¼₁ø ⁻¼ÉÊÂ₁, ÁÖòÐÃö | °öÅ¼üÎ ⁻¼×ö.

ÍÂÁ₁÷À,ô À₁ç§°₁¼"É | °öö"È ÅçÇî,ö :

| °öö"È 1 :

çç"Ãî,ñ½₁Ê Óý ",,Ç |¼₁í,ÅçðÎî|,;ñÎ ççü,×ö. Á₁÷À,í,û
þÃñîö ´§Ã Á₁¼ç₁çÂ₁É «Ç× ÁüÜö «"Ãòð¼ý þÖî,çÈ¼₁ ±ýÛ
Â₁÷î,×ö. Á₁÷À,ö °çÅóÐ ÌÆçóÐ ÁÊòð,Û¼Ûö, Á₁÷À, Ó"Ãî,;öò ⁻û
§₁î,ç ⁻ûÇ¼₁ ±ýÛö À₁ç§°₁¼"É | °öÂ×ö.Ó"Ãî,;öÀçÃçÖóÐ ²¼₁ÅÐ
Á₁ÛòÀð¼ ¼çÃÃî,°ç× ⁻ûÇ¼₁ ±ýÛö Â₁÷î,×ö.

|°öó"è 2 :

" , , "Ç -í, ù p"¼ôÀì¼çÂçø "Åì, xö. ÓÆí", ÁüÜö s¼; ù
Àð"¼"Â °üÜ ÓýsÉ | , iñî ÅóÐ sÁsÄ ÜèçÂ Á; ú¼ø, "Ç , ñ¼èçÂxö.

|°öó"è 3 :

p¼Ð " , "Â -í, ù p"¼ôÀì¼çÂçø "ÅðÐ s¼; ù Àð"¼"Â
²üÜ ÓýsÉ | , iñîÅóÐ ÅÄðì", Âçý "ÁÂôÀì¼ç"Â | , iñî p¼ÐÀì,
Á; ÷À, ð"¼ " , ùìì «ÊÂçø «ðð¼çôö ²s¼Üö , ðÊ pÖì, çÈ¼; ±É
s°;¼"É |°öÂxö.

ÅÄÐ Àì, Óö «s¼ Á;¼ç;ç |°öÂxö. Á; ÷À, í, "Ç ÅçÃø áÉçÂçÉ;ø
À;çs°;¼çì, ì Ü¼;Ð. 3 ÅçÃø, Ççý "ÁÂôÀì¼çÂ;ø À;çs°;¼çì,
sÅñîö.

|°öó"è 4 :

p¼Ð " , "Â -Â÷ð¼ç ÅÄðì " , Âçý -¼ÅçÂ;ø p¼Ð Á; ÷À, ð"¼
, εÆ; , °çÚ °çÚ ÍüÜ, Ç; , Ó"Åì, iöÀç"É sç;ì, ç |ÁÐÅ; , «ðð¼xö.

Ó"Åì, iöÀç"É ÅÄÐ " , Âçý |ÀÖÅçÃø ÁüÜö -ù, iðÊ
ÅçÃÖì, ç"¼Âçø "ÅðÐ «ðð¼xö. ²s¼Üö Á;°ù ççÈ, pÃð¼Ð¼ý ÜÊÂ
, ÅÄ;É ¼çÃÅì, °çx pÖì, çÈ¼; ±ÉôÀ;÷ì, xö. ps¼ Á;¼ç;ç ÅÄÐ Àì,
Á; ÷À, ð¼çÖö À;çs°;¼çì, sÅñîö.

|°öó"è 5 :

|°öó"è 4 Á;¼ç;ç ÅøÄ;ì, ôÀîððì | , iñî p¼Ð " , "Â ¼"Åìì
ÀçýÉ;ø "Åì, xö. ÅÄÐ " , "Â ÀÂýÀîð¼ç p¼Ð Àì, Á; ÷À, ð¼çø °çÚ °çÚ
ÍüÜ, Ç; , Ó"Åì, iöÀç"É sç;ì, ç |ÁÐÅ; , «ðð¼xö ps¼ sÀ;ø ÅÄÐ Àì,
Á; ÷À, ð¼çÖö |°öÂxö.

ÁøÄ;î,ô Äîððî|,;ñî þ¼ð ", "Â ¼"Äîîô ÄçýÉ;ø ,ð¼×õ.
 °çÈçÂ ðñ"¼ §¼;ûÀð"¼îî «ÊÂçø "Åððî |,;ñî, «îîû Äî¼çÂçø
 ²§¼Ûõ °çÈçÂ Åð¼ ÅÊÂ |¼ÇçÅûÈ ,ðÊ |¼Èç,çÈ¼; ±É Ä;÷î,×õ,

|°öó"È 6 :

Áü|È;Õ Äî,Óõ þôÀÊ |°öÂ §Åñîõ.

¿ç"ÊÂçø |,;ûÇ §ÅñÊÂ"Å :

- ÍÂÄ;÷À,ô Ä;ç§°;¼"É"Â ´û|Å;Õ Ä;¼Óõ |¼;¼+óð |°öÂ
 §Åñîõ.
- ´û|Å;Õ Ó"ÈÔõ Óø"ÁÂ;î |°öÂ §Åñîõ. ²§¼Ûõ Ä;ÚÀ;î, "Ç
 ,ñ¼Èçó¼;ø ÁÕððÄ"Ã «Û,×õ.

ANNEXURE – D

Letter requesting opinion and suggestion of experts for content validity of the research tool

From

N. Jasmine Victoria,
 II year M.Sc(N),
 Sara Nursing College,
 Dharapuram.

To

Respected Sir / Madam

Subject: Letter requesting opinion and suggestions from experts for establishing content validity of the tool.

I am a II Year M.Sc (N) Nursing student in Sara Nursing College. As a partial fulfillment of Masters Degree in nursing, I have selected the topic mentioned below for the research project to be submitted to "The Tamil Nadu Dr.M.G.R. Medical University Chennai".

Topic: "A Study to evaluate the effectiveness of Computer Assisted Instruction on knowledge and attitude regarding Breast Self Examination among Undergraduate students at selected college in Kanyakumari district."

Enclosed here with: 1. Proposal
2. Tool
3. Computer Assisted Instruction

May I request you to kindly validate the following enclosure and give your expert opinion and suggestion for necessary modifications of the tool.

Thanking you in Anticipation

Place:

Yours sincerely

Date:

(N. JASMINE VICTORIA)

ANNEXURE - E

CERTIFICATE OF VALIDATION

This is to Certify that the tool developed by Ms. N. Jasmine Victoria II year M.Sc(N) of Sara Nursing College On a Topic “A Study to evaluate the effectiveness of Computer Assisted Instruction on attitude regarding Breast Self Examination among Undergraduate students at selected college in Kanyakumari district” has been validated by the undersigned. The Suggestions and modifications given by me will be incorporated by the investigator in collaboration with their respective guide.

Name:

Signature:

Designation:

Date:

ANNEXURE - F

List of Experts

- 1. Prof. M.D. Shanthi, M.Sc (N)**
Associate Professor,
PSG college of Nursing,
Pelamedu, Coimbatore.
- 2. Prof. B. Sree Ranjini, M.Sc(N)**
Associate Professor,
PSG College of Nursing,
Pelamedu, Coimbatore.
- 3. Prof. S. Anita Mary Leena, M.Sc(N),**
Reader,
St. Xavier's Catholic college of Nursing
Chunkankadai.

4. **Dr. V. Kousalya Devi, B.A., MBBS., DGO.,**

Adviser,

Kasturba Hospital,

Gandhigram.

ANNEXURE-G

ENGLISH EDITING CERTIFICATE

I hereby certify that, I have edited the work of Ms. N. Jasmine Victoria II year M.Sc(N) of Sara Nursing College, Dharapuram. Who is under dissertation work on “A study to evaluate the effectiveness of Computer Assisted Instruction on knowledge and attitude regarding Breast Self Examination among Undergraduate students at Kanyakumari district”.

Name: John Luther
Designation: Teacher
Date : 27.01.2012


Signature :


DHARMALAKSHMI SEC. SCHOOL,
DHARAPURAM-638657,
TIRUPUR (DT),

TAMIL EDITING CERTIFICATE

I hereby certify that, I have edited the work of Ms. N. Jasmine Victoria II year M.Sc(N) of Sara Nursing College, Dharapuram. Who is under dissertation work on “A study to evaluate the effectiveness of Computer Assisted Instruction on knowledge and attitude regarding Breast Self Examination among Undergraduate students at Kanyakumari district”.

Name: S.K.SENTHILKUMAR
Designation: LECTURER IN TAMIL
Date : 24.05.2011


Signature :
S.K.SENTHILKUMAR, M.A., M.Phil., M.Ed.,
Lecturer in Tamil
ANNAI PASHIMA
TEACHER TRAINING COLLEGE
DHARAPURAM - 638 673.

